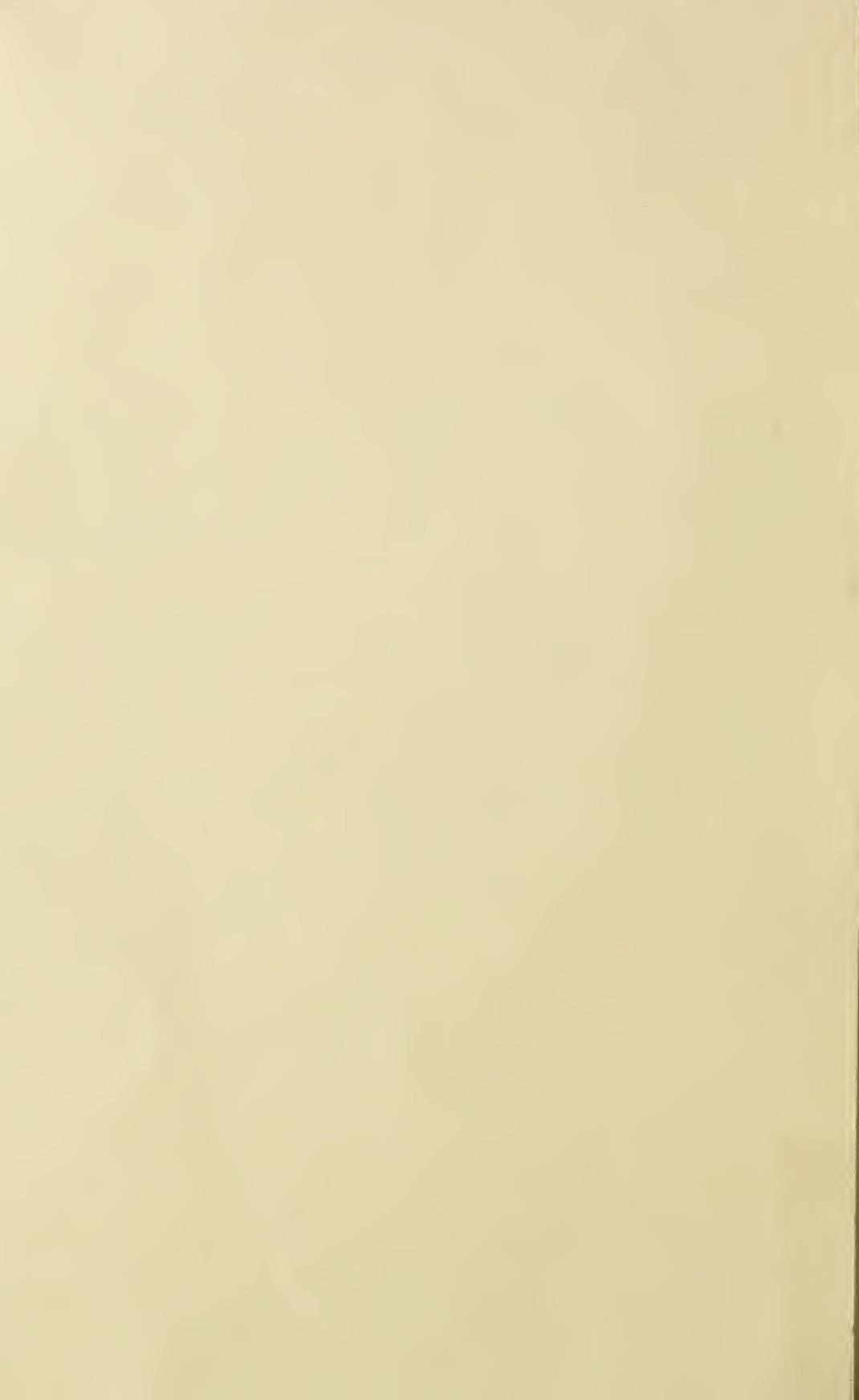


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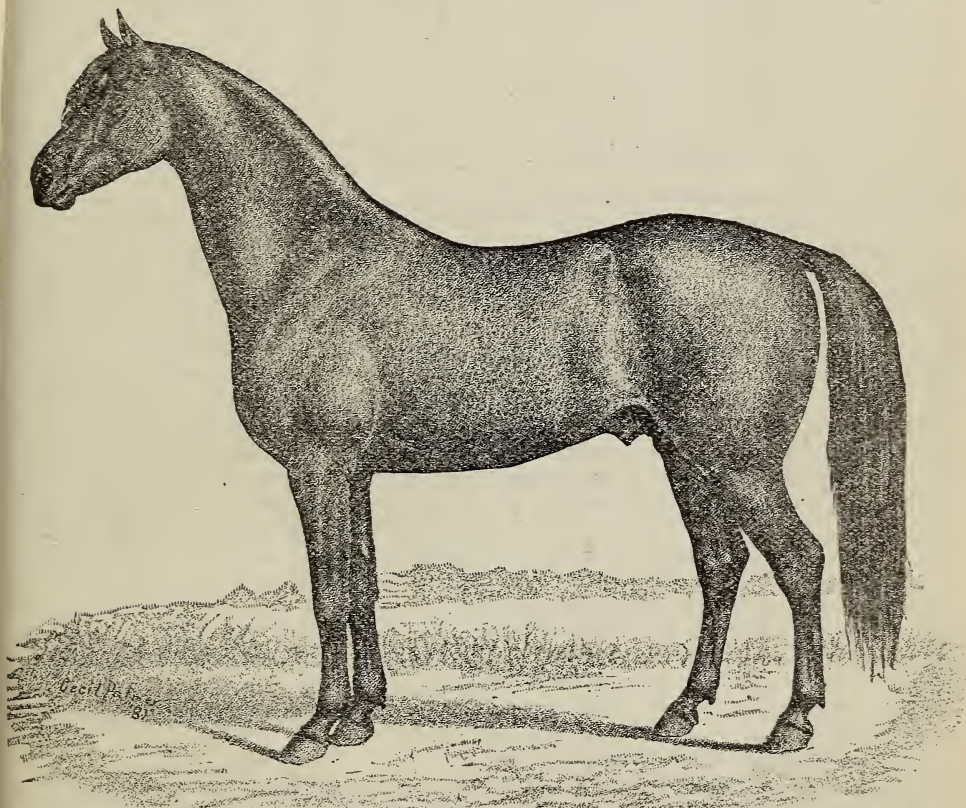
THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Live Stock and Rural Economy.

Vol. XIX. BALTIMORE, FEBRUARY, 1882.

No. 2.



TROTting STALLION—CYCLOPS—bred and owned by Edward B. Emory, Centreville, Md.

CYCLOPS unites in his veins the Mambrino and Hambletonian blood—the best trotting blood in America. He traces back to Messenger and imported Diomed and Whip. Cyclops foaled 15 April, 1875. A bright bay; black points; white star in forehead; full black mane and tail; long, rangy neck; straight back; full over the kidneys, and a most substantially built horse; 16½ hand high, and breeds true to his Hambletonian and Mambrino blood in appearance and in speed, trotting his mile—a four year old—in 2-35, and bids fair to much lower his record. Cyclops received 56 mares during 1881, and is now the favorite stud of Queen Anne's and other sections of Maryland. He is a model of speed, size, muscle and endurance, and has the faculty of developing his fine points in his produce, Mr. E. having 2 two year olds, his oldest, yet remarkably well developed, &c.

Farm Work for February.

Judging from the mildness of the weather in January and other indications, it may be conjectured that the month of February, this year, will most likely be one similar to many we have heretofore experienced in this region. If so, there will be many days when plowing and other spring work can be done, and much out of door work performed that is necessary to be done on every well managed farm, to wit, gates put in order and new ones made to take the place of bars—that have gone out of fashion. Fences repaired, compost heaps made, ditches looked after and cleaned out and new ones made where required. Blind ditches are in general best and cheapest in the long run. Every opportunity should be embraced to plow all stiff soils so that the turf shall rot, and the heavy soil be disintegrated by the future action of frost and rain and winds, before its final preparation for the forthcoming seeding and planting.

Cut a supply of fire wood for the next year. See that the machinery and all implements, harness, etc., are in good order and the wood work painted or well oiled, as also the metallic parts. Clean and oil the harness. Procure in time all the implements that will probably be needed during the year to carry on the farm operations.

If not already done, let each man have a carefully prepared programme of his intended work for the next six months, at least, to be of course modified by circumstances, but, if possible, carried out.

Tobacco.

Planters will of course embrace every mild, moist day to strip and handle this important product. They will also, weather permitting, select their spots for beds and rake off and prepare the ground for sowing the seeds. If the ground becomes dry and in nice order for working, then do so and sow the seed. As an experienced planter we would advise not more than half your seed for a crop be sown this month, unless the weather be very fine and the land in nice order. If possible, burn the bed with a heavy coating of brush, stalks, &c. We are old fashioned enough to believe that a bed well burned by means of a heavy coat of large limbed brush, mixed with leaves and corn stalks, so as to thoroughly heat the ground and leave a deep coat of ashes, is far better than any amount of guano or other fertilizers. This burning destroys all grass seeds and the ashes are the best fertilizers to insure a rapid and healthy growth of the plants. If we were going to sow a new or old bed, we would break

up the land first with the grubbing hoes, removing all the stumps and roots before laying the brush and burning—the heat thereby penetrating deeper in the soil. If you have no brush or corn stalks, or material for burning the bed, use 400 pounds of best Peruvian guano per acre, just before the last raking, before sowing the seed. Cover the bed after it has been sown and trampled by the feet or well rolled, with a good covering of pine or cedar brush. Other leafy brush will do, and even open brush will answer if put on heavy. As spring weather increases in warmth, remove proportionately the brush covering. To have a choice bed of plants, remember, that the ground should be a light, alluvial soil, with a gentle slope to the South, a high fence of wattled cedar or pine, or plank all around it; highly enriched, and prepared deep and well, so that the upper surface for two or three inches will be like sifted earth. Of course, the land must be in fine order for working, to have it in this condition. Such being the preparation, by the future use of soot, sulphur and well rotted stable manure, no fear of fly or other enemies may be apprehended, and a rapid growth of plants may be expected. Of course the weeds must be kept down by hand picking.

When the tobacco bed is sown every planter should sow mustard seed around the entire bed, from two to three feet in breadth, upon the edge of the bed and on the rakings that surround it. It is said to be a great preventive of the fly. Such used to be the practice in Prince George's county; Md., many years ago, of the most practical and observing planters. It gives a nice, early salad for the table, and either drives off the fly by its pungency, or furnishes a more agreeable food for the insect than the bitter, narcotic tobacco plant, which, we know not, but are sure that it has a good effect in saving the young tobacco plants to a great extent from the ravages of the fly.

Oats.

If the weather is favorable and the ground is in good order, that is, crumbles when plowed, it is not too soon to sow oats this month at any time. The sooner this crop gets in the ground after January, the better is likely to be the crop. Break up the land deep, and sow over it, per acre, 10 bushels of fine ground bones, or 300 lbs of Kainits or the same amount of South Carolina rock, ground, or dissolved by acid, and 1 bushel of plaster, (gypsum,) and four bushels of agricultural salt. These mixed or sown separately. Then sow one and a half or two bushels of oats to each acre, and harrow all well. Sow 2 bush-

els of orchard grass and 2 gallons of clover seed, per acre, and then roll with a rather heavy roller, and you will have a fine crop of oats, followed by a well set crop of grass that will last for years. Be sure and have water furrows run after all is done, to carry off all surplus water. If the land is low or holds water, it should have been properly drained by open or underground drains. Oats are daily becoming more valuable for its grain as well as straw, and with but small expense, forty or fifty bushels per acre can be raised as easily as the usual crop, under slovenly management and late sowing, of ten and fifteen bushels per acre. Let it be remembered too that the increased fertility of the soil by the suggestions (if followed) we make, will well repay the outlay and the extra trouble, besides the increase in the oat product and in the future grass crops.

Sowing Clover Seed.

Both as a covering crop to the land and as one of the best of forage plants—independently of its value as a fertilizer when turned under for a subsequent wheat crop—clover seed should always be sowed in February, if possible, and if not then, early in March, among the winter grain, and also among that seeded in the spring. It is a good plan to sow orchard grass with the clover as we have previously advised—say twelve pounds of clover seed and from one to two bushels of orchard grass per acre. The principal objection raised against orchard grass is that it frequently grows coarse and bunched. This objection will not apply when it is thickly seeded, whilst the grass will be of a finer quality and the aggregate yield greater.

Plastering Clover Fields.

Such fields as are already set in clover should have one bushel of plaster per acre, broadcasted over them as early as possible after vegetation begins to start.

Poultry Houses.

See that the poultry houses are thoroughly cleansed, whitewashed and fumigated, and repeat from time to time the cleansing and fumigating, taking care to remove the old nests and replace them with fresh, clean straw.

Store Hogs.

Feed them regularly, but not too heavily, three times a day; give them abundance of raw material to work up into manure, and have on hand, easy of access, a constant supply of charcoal or rotted wood and ashes. A mixture of the latter materials, experience has proven to be excellent in correcting acidity and improving digestion in swine.

Orchards.

Set out a young orchard of fruit trees as early as the season will permit, if more fruit should be required. Prune the old trees. Dig in a supply of lime and ashes—a peck of the mixture to each tree—and if the soil is exhausted, plough lightly the entire orchard and apply to each acre a top-dressing of coarse stable manure and wood's earth mixed in equal proportions.

Garden Work for February.

The latter part of this month is the time when hot-beds are made in this latitude, and are simple affairs, after all, but necessary to facilitate the early production of vegetables. Every man who wants early vegetables should have one. The expense is trivial and the labor not much, but they require some considerable attention, guided by judgment, which experience soon teaches.

We have repeatedly described the hot-bed and how easily any one who has a few boards can knock up one in an hour or two. We repeat—a hot-bed is nothing more than an oblong frame of inch boards or heavier, say, twelve feet long and six feet or less in width, made sloping from the back to the front. This frame is placed over a bed of fermenting manure, and when the heat is well up, the top of the manure within the frame is covered with six inches of fine mould. Some persons sink the hot-bed frame in the earth and if the space is left all around it for lining the frame with manure, the plan is an excellent one. At all events, whether sunk in the earth or above ground, the entire frame should be protected by a heavy outside lining, from the effects of frost. The sashes may be three or more in number and are usually glazed. But even this is not absolutely necessary. In the absence of glass a piece of cotton cloth may be stretched, and washed over with linseed oil. This, when dry, will be semi-transparent and will serve as a substitute for glass. But after all, the latter is best and the cost is not much. Keep on the sashes until the fermentative process has commenced in the manure, then sow whatever seeds it may be required to advance. Cover the frames with mats or straw, refuse hay, or old woolen cloths every night during cold weather, and in milder weather lift up the edge of the sash to admit air to the young plants. Water freely with lukewarm water of an evening before covering all up.

Open Air Culture.

Spinach.—As soon as the frost is out of the ground prepare a bed for early spinach. The ground should be made both rich and fine. Draw

the drills a foot apart and one inch deep. Sow the seed and press the earth about them.

Carrots, Parsnips and Beets.—Manure the ground heavily and spade deeply, if the soil and season admit of it, the different beds intended for the reception of the seed of carrots, parsnips and beets. This month is rather too early for sowing.

Peas.—Peas are hardy enough to sow early and they flourish best by early sowing. Drill in, therefore, a few rows of peas as soon as the frost has fairly disappeared from the soil; any subsequent light frosts after the peas are up will not seriously retard their growth.

Grape Vines—Grape vines untrimmed last November must be carefully pruned early this month. If left till later, the sap will run too freely and the bleeding from the wound will exhaust the vine.

Raspberries.—Trim the raspberry bushes. Tie them neatly to stakes and fork in about their roots, very carefully, a good supply of barnyard manure.

Gooseberries and Currants—These bushes should now be pruned. The cuttings taken from shoots of the previous summer may also now be set out, if the soil is open and the season favorable. Each cutting should be about at twelve inches in length, and all the buds except the four topmost ones, which are to form the future head, should be rubbed off before planting.

HERE is a new thing which, in the interest of the Canadian manufacturer will have to be squelched by a patriotic Government. A British inventor has succeeded in making out of paper a blanket which possesses all the qualities of lightness, porousness and warmth belonging to wool, and at a nominal price. The new blanket is made of two sheets of paper, between which a layer of wadding is placed in such a way that it cannot gather in lumps. The blanket is not crisp, as might be supposed, but soft and limp, and as yielding to the form as one of woollen. Unless a special clause be inserted in the N. P., forbidding the importation of paper blankets, we are afraid the Government will be deprived of one of its greatest luxuries—the tax of 70 per cent. on the poor man's blanket.—*Toronto Globe.*

Member of this Department relieved of Rheumatism by the use of St. Jacob's Oil, says Geo. W. Walling, Esq., Superintendent Police, New York, in one of our exchanges.—*Kansas City Mail.*

For the Maryland Farmer.

Sources of Nitrogen.

The season of 1844, in England, was remarkable for the abundance of the wheat crop. At Rothamsted, one of our experimental plots which was supplied with minerals only, in that year produced a crop of 15 bushels of wheat to the acre.

From the year 1844 up to the present date, by the addition of salts of ammonia to the minerals, 37 crops of wheat have been grown in succession, with an average of between 30 and 40 bushels per acre, per annum.

The largest crop of the whole series, which amounted to 54 bushels, was grown in 1863, and the smallest, which only amounted to 17 bushels, in 1879. The mean of these two crops would be about 35 bushels, which is not far from the mean of the average crop over the whole period.

It was decided to stop all further applications of ammonia, and to continue the mineral manures alone. The following would be, almost certainly, the result: the yield of the first crop after the application of ammonia was discontinued would depend very much upon the character of the winter. If the winter and spring were dry and the summer favorable, the crop might still exceed 30 bushels, as the unused ammonia remaining in the soil would be quite sufficient to grow this amount. But, if on the other hand, the winter was very wet, the greater part of this ammonia would be washed out of the soil and the crop would consequently suffer.

Under any circumstances, however, the direct influence of these soluble salts of ammonia would not affect the produce for more than one or two years; after which time it would probably decline to about the same amount as that grown on the plot which has always received minerals alone, and now yields about 13 bushels per acre.

In an experiment where the nitrogen was stopped after many years' application, the produce I may mention exceeded that grown by minerals alone, by one, two or three bushels per acre, annually, for a number of years, thus indicating that some accumulation of nitrogen in the soil had taken place, but we are disposed to attribute this accumulation to the decay of the stubble and roots of the larger crops grown upon this

experiment during the many years when nitrogen was applied.

The wheat crop of the United States averages about 13 bushels per acre.

When we see that a crop of between two and three times this amount has been grown at Rothamsted, for 38 years in succession, the question naturally arises as to whether the growth of wheat in the States follows a different law from what it does with us.

As far as regards the consumption of food by stock, and the proportion of increase to the amount of food consumed, I have satisfied myself that no material difference exists between our experiments at Rothamsted, and those which have been carried out in the States. I should like to be equally satisfied with regard to the growth of wheat.

I, by no means assert that the direct application of ammonia or nitrates would pay, but at all events such an application would be the most rapid and satisfactory way of deciding the question.

There are many economical processes of obtaining nitrogen, but it would be useless to go into these when even the very necessity of nitrogen is disputed. An experiment upon half an acre of land would not be very troublesome or very expensive.

Assuming that some farmers in the States may be willing to try the experiment with nitrate of soda, and that the amount to be applied will be from 50 to 100 lbs. to the half acre; it may be well to mention certain *essentials* which will be necessary in order to secure a correct result.

(1.) That the substance applied shall be nitrate of soda: it is true that this salt as sent out from town, rarely contains more than 5 per cent. of impurities, but it is often largely adulterated with common salt.

(2.) The time of application. If too little rain falls after the nitrate is applied, it is not sufficiently distributed through the soil; and if the rainfall is too great, the nitrate is washed away. I should imagine that for autumn sown wheat, probably the middle of the succeeding February might be about the proper time for the application. It must be borne in mind that there cannot be too much rain, so long as none of it passes into the drains and springs, and that the salt should be broken up, sifted *fine* and sown evenly over the land,

(3.) Weeds. It is of no use applying the nitrate to land which is full of weeds, as they will fight for every grain and thus spoil the experiment.

(4.) The Result. If the farmer found that the wheat where he sowed the nitrate was of a darker hue of green, that the crop was thicker and the straw longer, I should consider that the nitrate had done its work by producing growth, which is all that could be expected. The amount of grain might or might not increase in proportion, as this result depends upon the character of the seasons, which might or might not be favorable to the ripening of the crop.

These remarks have, I find, occupied so much space that but little is left for what I proposed saying as regards the sources of nitrogen in vegetation. It will, I think, therefore be better to defer any observations on this subject to a future occasion.

J. B. LAWES.

[The above will be read with great interest, coming from such high authority. We are promised by the Doctor another article, soon, on this important question.—
EDS. MD. FAR.

For the Maryland Farmer.

Thorough Cultivation.

Thorough cultivation with manure is the foundation of success in farming operations, but either one without the other, make it more difficult to succeed. Manure undoubtedly enriches the soil and supplies the plants with what fertilizing matter they need to perfect their growth, yet the manure must naturally fail to convey the greatest measure of good where it does not have the best possible conditions for reaching the plant roots in such form as to be most readily and completely assimilated. When the manure is merely applied to the land, and the cultivation but indifferently performed, much of the fertilizing value must naturally be lost, through the action of air and sun combined, and being carried off on the surface by the rains, the neglect to stir the soil properly and constantly affording no opportunity for the mercurial matters to reach the roots of the growing plants.

Whether in conjunction or in connection with manure, or whether alone, thorough cultivation is absolutely essential to rapid

plant growth and development, and with some quite noteworthy experiments made in England a few years ago, it was found by a carefully kept series of accounts, that more *profit* was realized from a certain farm by thorough cultivation, *without* manure, than by doing so in connection with liberal manuring. This may seem simply impossible and assuredly is not a good method to suggest to our readers to follow, yet the experiments proved conclusively that such was the case. If this should be persisted in for any number of years, the results would naturally be an impoverishment of the soil, although it is surprising to see how many Southern farms are worked with very little manure, yet most excellent crops, especially of corn are grown, and this too, with merely good cultivation and no manure at all.

Thorough cultivation must be the watchword of all farmers, if they would secure fair crops even without the application of manure. And as cultivation also prevents many of the evils arising from a drought or very dry season, its good effects are doubly apparent to the careful, systematic cultivator of the soil, as it helps to solve the question of profit or loss. E. JR.

HOW TO DISTRIBUTE MANURE.—Farmers are often at a loss to know how to distribute the manure on a field properly. An example may help them. For instance, suppose a field of $5\frac{1}{2}$ acres, on which 82 loads of manure are to be drawn. Dividing 82 by $5\frac{1}{2}$ gives 15 loads per acre. By making four heaps of each load and placing the the heaps six yards apart, the result will be the same. A cubic foot of half rotten manure weighs about 56 pounds, coarse, dry manure is about 48 pounds. A load of manure is about 36 cubic feet; hence a load of half rotten manure will weigh a little over a ton (2,016 lbs.); if coarse and dry it will weigh 1,728 lbs. There are 43,590 square feet in an acre; if you multiply this by the number of pounds you want to spread on each square foot, and divide the product by 2,016, the quotient will give the number of loads required of half rotten manure.—*Toronto Globe*.

TO PROMOTE A VIGOROUS GROWTH of the hair use Parker's Hair Balsam. It restores the youthful color to gray hair, removes dandruff, and cures itching of the scalp.

Extent and Depth of Roots.

Prof. O. W. Atwater, in the American Agriculturist, gives the following on the "Extent and Depth of Roots:"

I have often been interested in noting the ideas most people have as to how far and how deep the roots extend. The majority guess roots of grass and clover penetrate between five and ten inches, and are surprised to find that they reach several feet. I have some roots of timothy, clover and other plants dug from a very heavy clay soil, a good quality of brick clay, so compact and hard that a sharp knife in cutting it, leaves a surface as smooth and shiny as it would cut on the end of a pine board. I have traced the roots of the timothy to a depth of two feet and four inches, and the clover three feet and two inches. A number of years ago a very intelligent German farmer named Schubart, made some very interesting observations upon the roots of plants as they grow in the field. An excavation of five or six feet deep or more, was dug in the soil so as to leave a vertical wall. Against this wall a jet of water was played by means of a garden sprinkler; the earth was washed away, and the root of the plants growing therein laid bare. The roots thus exposed in a field of rye, in one of beans, and in a bed of garden peas, presented the appearance of a mat or felt of white fibres, extending to a depth of about four feet.

Roots of wheat sown September 26, and uncovered the 27th of April, had penetrated three and a half feet, and six weeks later about four feet, below the surface. In one case, in a light subsoil, where roots were found as deep as seven feet. The roots of the wheat in April constituted 40 per cent. of the whole plant. Hon. John Stanton Gould, I believe it is, says that "he has seen the roots of Indian corn extending seven feet downward," and Prof. Johnson states that "the roots of maize, which in a rich and tenacious earth extend but two or three feet, have been found to a length of ten or even fifteen feet in a light sandy soil." Roots of clover, when growing in a rich, mellow soil, extend far, both laterally and vertically. Prof. Stockbridge "washed out a root of common clover, one year old, growing in the alluvial soil near the Connecticut river and found that it descended perpendicularly to the depth of

eight feet." Lucern roots are said to reach a depth of twenty and even thirty feet. Alderman Mechi, in England, tells of a neighbor who "dug a parsnip which measured thirteen feet six inches in length, but was unfortunately broken at that depth."

The Smithfield Cattle Show.

The eighty-fourth annual exhibition of fat cattle, held by the Smithfield Club at Islington, has been the most successful in the annals of the Club. The Shorthorn classes were very weak, whilst the Polled Aberdeen were the theme of universal admiration. For several years past this class has been running the Shorthorns a close race at all the exhibitions held in this country. Sir W. J. Gordon-Cumming's black Polled heifer, although only weighing 15 cwt. 3 qrs. 24 lbs., was admitted to be in point of equality one of the best beasts ever exhibited in this country. She took £250 in prizes. The Shorthorn men attending the show were evidently put upon their mettle, and next year greater efforts will be made to maintain the position which has hitherto been held by the Shorthorns.

* * * * *

The principal merit demonstrated by this show is early maturity, and probably no better example of what can be done by judicious breeding and feeding could be found than the wonderful heifer of Sir Gordon-Cummings. The show is entirely for fat cattle, and no breeding cattle are exhibited—nevertheless it is usually a rendezvous for breeders of live stock, and buyers congregated there from all parts of the world. The sheep were not so good this year as usual.—*Toronto Globe*.

Dr. E. Lewis Sturtevant, a well-known agriculturist of S. Framingham, Mass., is going to New York to take charge of the association recently formed in that State for the purpose of experimental farming on scientific principles with a view to benefit the agricultural interests. The State has advanced \$40,000 for the object. The enterprise will probably be located at Geneva. Dr. S. is a native of Winthrop, and a graduate of Bowdoin class of 1862.—*Winthrop Budget, Maine*.

[From a long and intimate acquaintance with Dr. Sturtevant, we are prepared to say the New York Association has got the right man in the right place—Eds. Md. Far.]

Amber Cane as a Forage Crop.

A. B. Allen says in the New York *Tribune*: A friend who keeps a large dairy, informs me that amber sorghum has helped out the short dry pasture of this season greatly, and that it proves the best soiling crop he has ever tried, superior even to the choice sorts of sweet corn. His land is a moderately fertile clay loam. He prepared it well, but used no fertilizer, either before or after sowing the seed. When the sorghum had attained a height of five feet he began cutting it for his cows and the weaned calves, all of whom ate it greedily. Although the lower parts of the stalks were rather hard at the time, they were so full of sweet juice that the stock devoured them all clean up, the butts as well as the other parts, leaving nothing behind. A part of the crop was left to go to seed. After this had ripened, much later in the season, the tops of the stalks bearing the seed were cut off, and the remainder of them cut close to the ground and scattered as wanted over the pasture where the cows were feeding; and they ate up all these dry stalks as clean as the first, which were cut for soiling before the seed ripened. These stalks were still quite juicy and sweet. This shows how savory and nutritious this new kind of forage is, and the great benefit that the dairyman, as well as stock raisers in general, may realize extensively hereafter. It would be admirable for summering swine, for it could be sowed to come into season by the time the first growth of clover is consumed; and when they have the advantage of feed on this and other grass crops, there will be no danger of cholera, or in fact any other disease.

ENSILAGE.—A cubic foot of ensilage weighs from forty to fifty pounds, and a daily ration for a cow is fifty to sixty pounds. One and a half cubic feet makes a cow's ration for a day. A silo ten feet deep, ten feet wide and ten feet long will hold ensilage sufficient for two cows for 333 days, or four for half the year.

Three years ago St. Julian, the great California trotter was unknown; the same may be said of Kendall's Spavin Cure. Now both have a world wide reputation. Why? Because they both have merit. One is a great trotter, the other is the most successful remedy ever discovered to be used on man or beast. Read Advertisement,

THE DAIRY.

For the Maryland Farmer.

Coming changes in the Dairy.

There is an unmistakable tendency of the times towards two points in dairying, exclusive butter making, and different breeds for different purposes. The Western man has demonstrated with his cream gathering factories, that exclusive butter making and adopting every improvement, that in results it is far in advance of a combining of both butter and cheese, and that the butter of the one is far superior to any factory where butter and cheese are both made, and for the very reasons that were set forth in a recent FARMER.

From facts gathered it seems certain that north or south, where dairying is practiced, that there will have to be an acceptance of more western methods, or else the men who have opened new dairy sections and from the first discarded old inventions and conservative ways, will even undersell the older dairyman in their own markets, or else force them down to a point in producing, that butter and cheese made on old systems will be produced at an actual loss.

To be successful in the future implies three radical changes. First, that butter and cheese making will have to be separated and factories conducted upon an exclusive plan of cheese or butter. Second, that common breeds of dairy cows will have to be discarded, and breeds adopted that have a tendency in their milk production to favor either butter or cheese; and third, there will have to be a studied and fully carried out attempt to equalize the butter and cheese product throughout the year; in other words, practice winter dairying as well as summer manufacture.

Briefly viewing our propositions, we see that there is a tendency upon the part of the butter consumers to demand an article of high grade and are willing to pay for it; proof of which, is the difference in the quotations of prices, dairy butter and fine western creamery, which is 12 cents. That the market has never been overstocked with fine butter is evidence that the supply is not equal to the demand. And again, if the people of this country, last year, eat ninety million pounds of oleomargarine in preference to dairy butter, it is only reasonable to suppose that if ninety million

pounds of creamery butter had been made from the cream of this discarded dairy butter, it would have all been sold, and the difference in the price would have amounted to the handsome sum of nine million dollars, every dollar of which would have gone into the hands of the farmers.

The stocking of our farms with grade Jerseys to increase the butter yield, or having a drove of cheese producing Holsteins, if we fraternize a cheese factory, is self-evident in its importance; while the winter dairying, by its production of goods when produce is high, and thus equalizing the production of our dairies, improving the breeds of our cattle, and its valuable influence upon the production and fertility of our farms is a matter no candid thinking man will chance dispute.

Ohio, Dec., 1881.

JOHN GOULD.

HOW TO TELL GOOD BUTTER.—When butter is properly churned, both as to the time and temperature, it becomes firm with very little working, and it is tenacious; but its most desirable state is waxy, when it is easily moulded into any shape, and may be drawn out a considerable length without breaking. It is then styled gilt edged. It is only in this state that butter possesses that rich nutty flavor and smell, and shows up a rich golden yellow color, which in parts so high a degree of pleasure in eating it, and which increases its value manifold. It is not always necessary, when it smells, to taste butter in judging it. The smooth unctuous feeling in rubbing a little between the finger and thumb expresses at once its rich quality; the nutty smell and rich aroma indicate a similar taste; and the bright golden, glistening, cream-colored surface shows its height of cleanliness. It may be necessary at times to use the trier, or even use it until you become an expert in testing by taste, smell and rubbing.—*Robert Hall, Ohio Butter Inspector.*

On the Island of Jersey cows with white horns are not looked upon with favor. The yellow horn tipped with black is considered a much richer milker than the white horn; while the crumpled horn is there now, as it was nearly a century ago, a favorite horn. This latter is a horn turning in a curve across the head to near its center, dropping somewhat from base to tip.

Gutters for Cow Stables.

The following from the *Ohio Farmer* will, we think, meet the requirements:— 'First drive in your largest or longest cow, and chain her up in the back stall; next drive in your smallest or shortest cow in the front stall. Then give them meal or other feed in their mangers, and while they are quietly and comfortably eating, seeing that they are standing squarely on their feet, carefully mark the position of the hind feet upon the ground and draw a line between these points across the entire stable. This line will mark the position for the front edge of the manure gutter or trough. Back of this line dig out a square ditch, 16 inches wide and 8 or 10 deep. Into this drop your plank gutter which should be made of two-inch plank. The bottom plank should be 12 or 16 inches wide, and the sides from 6 to 8 inches wide, according to the method adopted of spiking them together, so as to leave your manure gutter full twelve inches wide in the clear and not less than 6 or 8 inches deep. The top of this trough must be well braced at intervals of 8 feet to prevent the pressure of the earth from forcing in the side planks and thus making the gutter too narrow at the top. These gutters must be well cleaned every day while the cows are out for water and exercise, and a light sprinkling of chaff or short straw shaken over the bottom of an absorbent, and to keep the cows tail out of the liquid manure when lying down. The gutter must have an inclination from the back part of the stable to the front, and a free discharge through the wall in the barn into the barnyard, where other absorbent matter should be ready to receive it. No littering of these gutters would be necessary were it not for the fact that the passage of the liquid manure will be more or less obstructed or clogged by the solid manure after the stables have been occupied for several hours. The platform on which the cows are to stand and lie should also have a slight declination to the manure gutter. The proper length of this platform I have found to range from six feet in length for the the shortest cow down to five feet long for the longest cows. The cows should be placed in the stalls according to their length. Back of the manure gutter should be a passage way or walk of suitable width for the wheelbarrow and the milkers. These distances will determine the proper dimensions for a cow

stable, which is not less than twelve feet in depth, and of any length desired, according to the size of the barn or the the number of cows. The width of the stalls should be from three to four feet. The next best method which I have seen practised of keeping cows clean in winter is to leave them unchained in box stalls six by eight or ten feet, keeping them well cleaned and littered every day.

Winter Calves.

A Wisconsin dairyman asks if there can be any profit in raising calves in winter, or late fall calves. This question is now very pertinent since winter dairying is becoming common. Butter bears a higher price in winter; and this induces dairymen to have their calves dropped in the fall. Let us examine the expense account. Some think the cold weather will add much to the expense of keeping the calves; but this is probably a mistake, as the following considerations will show:—The milk, after making butter in winter, is in better condition than in summer, as it is seldom sour, and may always be fed sweet. Calves kept in warm quarters will make more growth upon the same quantity of milk in winter than in summer, on account of its better quality, and because, being fed on hay, they seldom scour or have any trouble of stomach. We have tested the comparative gain on the same quantity of milk fed to calves in winter and summer. Six calves fed through January, February and March, on an average of 25 pounds of skim milk, each, per day, starting with an average weight of 80 pounds, made an average weight on the first day of April, of 305 lbs, or a gain of 2½ lbs. per day. They had besides the milk what rowen hay they would eat. In feeding ten calves for four months, beginning May 1st, starting with an average weight of 100 pounds, and feeding 25 pounds of skim milk, with pasture, they reached an average weight on September 1st, of 346 pounds in 123 days, or an average gain of 2 pounds per day. It is almost impossible, on sour milk and grass, to keep calves from scouring to some extent. We have made better weight in summer by allowing them to run in a yard and feeding good hay in racks. The hay seems to counteract the acidity of the milk. We have no hesitation in say-

ing, that calves well cared for will make a better growth on sweet skim milk and hay, in winter—than on sour skim milk and grass, in summer. Then it must be profitable to raise winter calves for beef; for, as we have seen, they will be heavier and cost no more. And if heifers are raised for the dairy, and come in at two years old, they will cost less raised from fall calves than spring calves, for in the former case, as we have seen, the first winter costs no more than summer keep, and so there is only the extra cost of one winter before the heifer drops her calf and becomes a producing cow. Most dairymen who believe in full feeding, and therefore raise heifers of good growth, also believe in early maternity, that the milking habit may be developed early. The general opinion of the best dairymen is that a cow at four years old, will give more milk if she comes in at two than at three years old. There can, therefore, be no valid objection to raising winter calves where it is found profitable to make winter butter. And this is likely to extend year by year, for the general taste seems to prefer fresh butter to that which has been kept for half a year.—*National Live Stock Journal*.

•••

FALSE cream in butter.—When cream is churned at a temperature of sixty degrees, some of the cream may not become butter, but will remain in the form of an emulsion with the buttermilk. This is more the case at this season when the temperature of the milk in setting is usually lower than sixty degrees. In the churning some alcohol may be formed, and acid is always present in the cream from the oxidation of milk sugar, and these dissolve the butter and retain it in a form very much like the cream. The temperature at which cream is churned should never be less than sixty-two degrees, and the difference of two degrees, although so seemingly insignificant, is yet sufficient to make all the difference between getting butter and missing it, altho' one may continue churning for hours. At this season it is advisable to ripen the cream by keeping it in a warm place at sixty five degrees for twelve hours before churning, and frequently stirring it, or the cream-pot may be placed in a tub of water at eighty degrees for an hour and then taken out and kept twelve hours in a warm place,—*N. Y. Times*,

POULTRY HOUSE.

Conducted by T. B. Dorsey,

St. Denis, Baltimore Co.,

The French Class.

The Houdan.



The Asiatic class in all its varieties, consists of pure birds, which by a long course of scientific breeding have been improved up to their present standard of excellence. But the very first bird of the French class is the direct result of a cross between two pure bred, from both of which it has derived not only their best characteristics but has added to these certain decided and valuable qualities of its own. The old English dorking was a bird of small bone, but large development of flesh, especially in breast meat, and an exceeding plumpness and delicacy as a table fowl. Its drawbacks were sluggishness, disposition to brood and difficulty in raising young chicks. The White Polish were great layers of fine eggs and quiet disposition. Their disadvantages were delicacy of constitution, sensitiveness of wet and cold as young chicks, and smallness of size. From a cross of these two breeds resulted the Houdan. Combining the size, plumpness and fine meat of the Dorking, with the great laying powers of the Polish, the breed is active, hardy, non-sitters, and the bird of all birds for the farmer. It has been objected to them that the crest which they inherit from the Polish is a drawback in districts infested by hawks. But this is easily obviated by clipping the appendage close with a pair of scissors, thereby putting the bird on an equality with other fowls, and only depriving it of what is merely a fancy point. The eggs which are very large and which they lay in profusion, are uniformly fertile, and the chicks are the most active, hardy little creatures ever seen. They seem to grow right from the shell, and if kept well fed, for they have enormous appetites, will develop with a rapidity that is fairly marvellous. As a cross on Asiatic or common fowls with the Houdan cock produces the most rapidly maturing and fine bodied chicks I have ever seen, and if our farmers would only divest themselves of their prejudice against

the harmless crest, they would soon find them one of the most profitable of breeds. Their color is a kind of broken black and white, varying in proportion according to age and quality and presenting an attractive appearance. We have, at least, one Maryland breeder, Mr. Wyman, of Elliott city, who has a flock of exceedingly fine bred birds, whose standard is kept up by judicious breeding. He has, this year, by my advice, concluded to breed some large yards for crosses, and his experience will, I think, tend to verify my assertion as to the value of the Houdan cock for producing a market fowl of surpassing excellence.

How to Set a Hen.

If there is one recipe for this problem there are a hundred. But follow any one of them, without due regard to the habits and wishes of the particular hen you wish to set and you will be likely to find yourself in the minority. I shall not attempt to add another to the hundred, but merely give some simple preliminary rules and then say to each essayist—study the ways of the hen. In winter, make your nest in a box in a warm, dry place, of some soft substance, chopped straw or meadow hay, which last is far the best. In summer, choose a cool, damp place, and if possible, make the nest on the ground, the materials to be the same. In winter, give the microscopic incubator from 9 to 11 eggs, according to her physical development and fluff; in summer, from 13 to 15 or even 17. Set her at night, and if possible in or near the nest she has chosen beforehand. Do not put food or water near the nest, so that she can get her victuals without coming off, as some tell you to do. The hen needs the exercise she gets when she is compelled to come off, and is very likely to foul her nest or become troubled with vermin if she is too constant a setter, and the eggs need the air they get while she is gone. About the fifteenth day in summer, put a carbohc nest egg with the others. This will keep the chicks free from vermin when they are hatched. Do not disturb her unnecessarily, humor her whims as far as practicable, and you will find that if "there is reason in roasting of eggs," still more is there "reason in setting of hens."

Have you a lame horse. Call for Kendall's Spavin Cure. Read advertisement.

THE annual meeting of the Atlantic Federation of Homing Pigeon Societies of America was held at No. 78 Cortlandt-st. Among the societies represented were the Newark Club, Old Dominion Club, of Alexandria, Va.; Maryland Club, Baltimore; Hudson Homing Club, New-York, and the New-York Club. Officers were chosen as follows; J. R. Husson, New-York, President; H. F. Whitman, Baltimore, Vice-President. T. H. Richardson, Green Island, N. Y., Secretary, and J. H. D. Smoot, Alexandria, Va.; Treasurer.

LIGHT ABOUT THE HOUSE WE LIVE IN.

The well-known author of "Medical Common Sense," Dr. N. B. Wolfe, of Cincinnati, O., has just published a new book, called "More light about the house we live in!" which is attractively illustrated, and abounds in "plain talk, but true," against swallowing drugs into the stomach, for any disease of the, throat, or lungs. It is a wholesome little volume to read, and should be in the hands of every subscriber to the MARYLAND FARMER. Send ten cents to the doctor, and get a copy of it free by return mail. Address as above.

In all cases a cow should be milked regularly and stripped clean. No doubt this has much to do in forming good milking tribes of cattle, by encouraging the milk-giving organs as far as possible.

—Now is the time to subscribe for the MARYLAND FARMER, the best agricultural magazine published in the interests of the farming community.

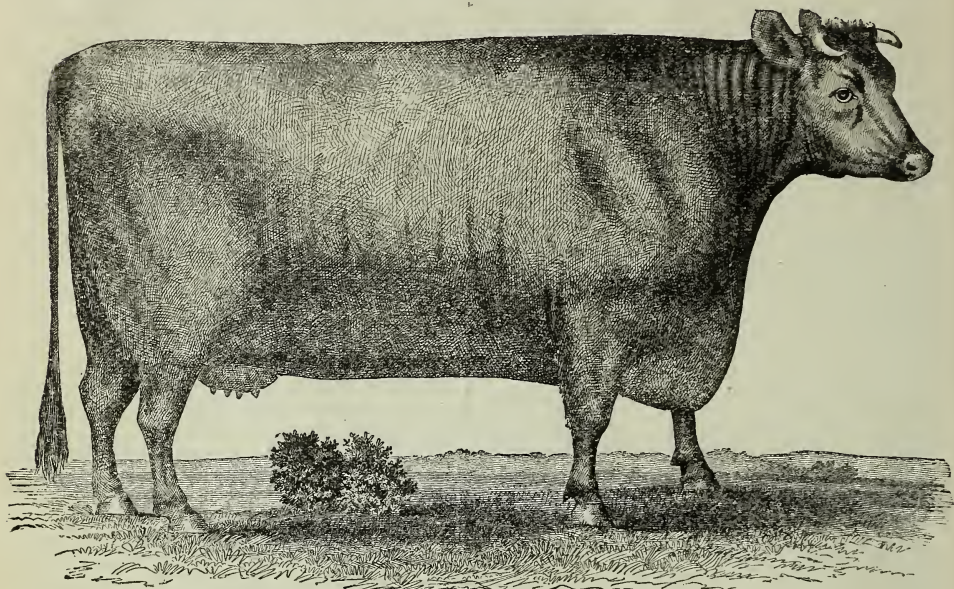
The latest man who has been made happy through the use of this valuable liniment, is Mr. James A. Conlan, Librarian of the Union Catholic Library of this city. The following is Mr. Conlan's indorsement:

UNION CATHOLIC LIBRARY ASSOCIATION, }
204 Dearborn Street,
CHICAGO, Sept 16, 1880 }

I wish to add my testimony as to the merits of St. Jacob's Oil as a cure for Rheumatism. One bottle has cured me of this troublesome disease, which gave me a great deal of bother for a long time; but thanks to the remedy, I am cured. This statement is unsolicited by any one in its interest.

JAMES A. CONLAN, Librarian,
Chicago Western Catholic.

LIVE STOCK REGISTER.



SHORT HORN COW—BARRINGTON BATES, 12th.

The above is an excellent likeness of the red Short-horn cow,—Barrington Bates, 12th—calved May 1st, 1878, bred by Messrs. Vanmeter & Hamilton, Ky., and now owned by E. B. Emory, Esq., of Poplar Grove Stock Farm, Centreville, Md. This red Short-horn cow was sired by the 20th Duke of Airdrie, and the sire of her dam was the Duke of Noxubee, thus she unites in her veins the choicest blood of these two famous strains of the Short-horn breed. Her pedigree is a long and rich one, but it is unnecessary to give it here.

Mr. Emory received for this fine cow the first premium, at Timonium, Baltimore county, Md., in 1881. The subject of this notice was considered the best red “Mary” sold by Vanmeter & Hamilton, at their sale in July, 1881, when she was bought by her present owner.

MUTTON.

—The cheapest meat for the farmer, is mutton. It may safely be said to cost nothing, as the fleece from a sheep of good breed will pay for its keeping. Then, for additional profit there is a lamb or two, the pelt of the animal, if killed at home, the excellent manure from its droppings and the riddance of the pasture from weeds, to which sheep are destructive foes. With the exception of poultry, mutton is also the most convenient meat for the farmer. A sheep is easily killed and dressed by a single hand in an hour, and in the warmest

weather it can be readily disposed of before it spoils. Science and experience both declare it the healthiest kind of meat.

THE QUANTITY OF FOOD REQUIRED FOR A HORSE.—For ordinary work, a horse of average size should be fed 12 pounds of oats or other grain food, and 15 to 18 pounds of good hay; but, if driven on the road, 2 or 3 pounds of hay, morning and noon, and 8 or 10 at night, with the same quantity of grain.

Wool Crop—Importance of Sheep.

An interesting table of the wool production of the United States, has been published by *Bradstreets*, compiled from census bureau return. This table shows, by States, the number of fleeces, the average weight per fleece, and the total number of pounds.

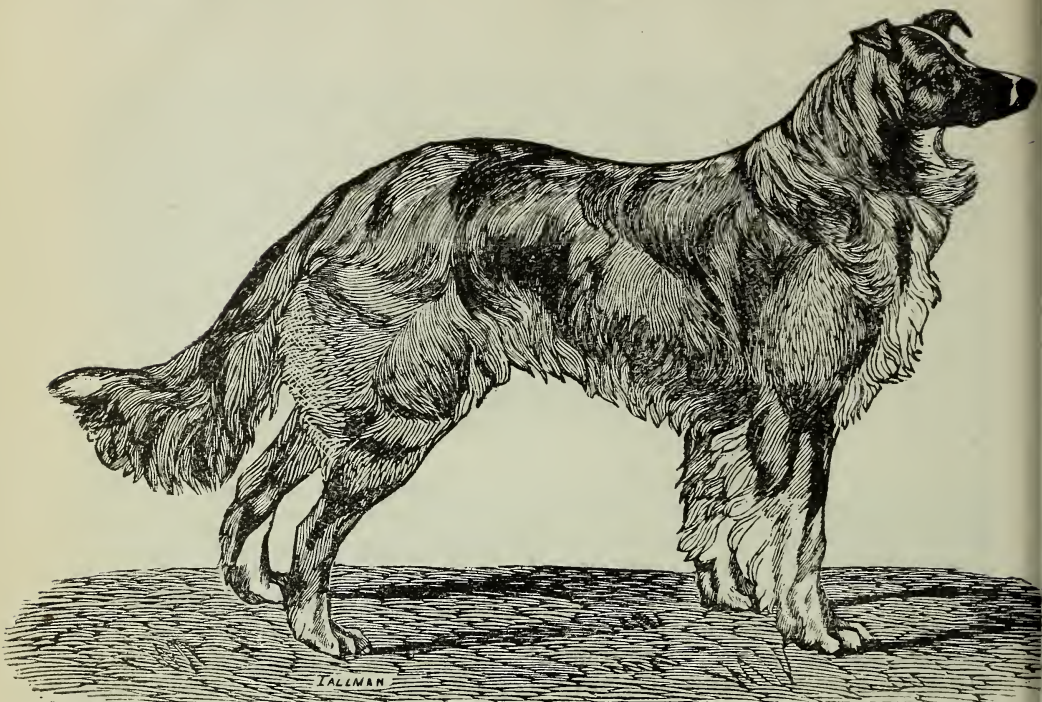
The regular returns of wool clip amount to 35,190,866 fleeces, 155,680, 493 pounds, 4.43 pounds, average weight of fleece. In Texas and California, however, as well as in parts of intermediate regions, there are two clips of wool in a year, a spring clip and a fall clip. In some instances the census returns secured the spring clip only, and in some cases the schedules were answered so as to show the clip for both parts of the year, a variation which still needs fuller revision. There are also a large number of sheep on the ranches of the western Territories, which have not been reached by ordinary enumeration. The sheep sold to butchers also carry a large amount of wool to the shambles, which is not returned to the wool clip, but has been obtained through other returns as pulled wool. From these sources, additions must be made to the figures above given, of 10,000,000 to 12,000,000 pounds for the two annual clips where enumerators secured reports of but one. Five millions sheep are the estimated addition for ranche sheep, and 25,000,000 pounds a possible addition for their fleeces. From 30,000,000 to 35,000,000 pounds are likely to be obtained as pulled wool. This will give a total wool product of from 220,000,000 to 228,000,000 pounds.

This table shows that the average weight of fleece in the older States is much greater than most of the new states, where there are immense flocks kept upon the ranches. For instance, New England produces an average rate of fleece, of 5.28 lbs., and total product about the same as that of Texas, whose fleeces average only 2.87.

Ohio leads in wool product, credited with 25,003,756 lbs., and California comes next with 16,798,036 lbs. Iowa shows the heaviest fleeces, averaging over six and one-half pounds, while North Carolina shows the lightest, being only an average of two pounds, each fleece. What a room for improvement is here for the grand old "North State." These facts should stimulate the people of the Middle States (the best sheep region in the world,) to further efforts towards improvement of the flocks of sheep.

In Maryland, alone, there can with little effort on the part of the farmers, be raised twenty sheep where there is now one, and six pounds of wool on the average per fleece, be made the increase. To do this requires but two simple things. Insist on a stringent dog law for sheep protection. And secondly, improve the breeds by breeding only from thoroughbred bucks, and changing the same every two years, keeping always as near as possible to the same breed, let it be what breed it may. Crosses of pure breeds sometimes prove very profitable for both wool and mutton, but as a rule, keep the flock as near pure bred as possible of the breed it claims to be. On the subject of wool production, the *New England Farmer* makes the following sensible remarks:

"We import a large amount of wool. In 1880 this amounted to 128,000,000 lbs., which was rather more than twice the usual annual import. These figures will not probably be reached again as home production has been somewhat stimulated, and other causes have operated to further modify the supply. The most of the wool imported, however, has been coarse and carpet wools, such as our farmers cannot afford to raise, and to which we give new value by our extensive carpet and weaving industries. Such clothing wools and fine wools as we require, might more profitably be raised here, especially if the raising of mutton be made, as it should be, a more prominent object; for the rapid increase of population, and the demand for food and clothing will for many years insure against the sheep business being overdone."



The Champion, "LASS O' GOWRIE," Impd. and owned by Dr. J. W. Downey, New Market, Md.

The above is a true portraiture of the beautiful Collie bitch, "*Lass O' Gowrie*," imported in August, 1880, by Dr. Downey, of Md., along with Tweed, II.

The champion lass is remarkably pretty, of sable color, with white on chest and feet. She is first-class as a worker with sheep and has been pronounced by good judges the best show Collie bitch in America. She was V. H. C., at Crystal Palace shows before being sent to this country. When she was only a puppy she won 1st premium at St. Louis, Oct., 1880. 2d, at Pittsburgh, 1881, to Tweed II, and at New York in April, 1881, she won the title of "*Champion*." Hence she is now designated "*Champion*," Lass O' Gowrie.

Every farmer who owns sheep should have a shepherd dog, well trained. They are of more service than twice as many men, in managing and protecting a flock.

For the Maryland Farmer.

Cooking Food for Stock.

The stir and excitement over ensilage, which is now taking possession of those of rural tastes and rural interests, reminds us of the similar stir made in regard to cooking food for stock, though now we hear comparatively little of the wonderful economy of cooking all kinds of stock, the royal road to wealth in both instances being over the same unknown pathway. "Figures won't lie," but the trouble in that respect, may rest with those who so lavishly use them, and use them so frequently as actually to believe the figures themselves. If all the decided benefits claimed for cooking the food for stock had been fact instead of fiction, we would see farmers and dairymen use it more than they do, but experiments, frequently very costly ones, have demonstrated facts which were total at variance with the well spun theories of the advocates of this method of preparing food. It is foolish to suppose that cooking the food adds to the nutriment,

for the process is simply one of softening, and adding water. It undoubtedly puts the food in such a condition as to make it more easily and quickly digested, but we doubt if it adds any to the amount of nutriment which the animals extract from the feed. As it is so readily digested, more can be consumed and assimilated, we believe, in a given time than when fed uncooked, and this leads some to claim for it a desirable feature in fattening animals. Here, again, we must take exception, for while it does fatten quickly, perhaps the quality of the flesh produced from animals fed principally or entirely on cooked food is far inferior to that produced from animals fed on hard, uncooked food, for while the former is loose in texture and the fat inclined to be soft, the latter is close grained, firm, and of that inviting appearance which commends it alike to buyers and consumers. Those who doubt this should try the experiment either with a beef or with one or more porkers.

In making estimates of the great value of cooked over uncooked food, writers were apt to overlook the by no means inconsiderable item of expense attending its preparation, as well as the cost of the apparatus, fuel, &c. Even if there could conclusively be shown that there was a fair margin of profit to be gained in cooking the food, it would have to be moderately large to compensate for the outlay in cash, and in time attendant on its preparation. On a large scale it *may* pay, though we doubt it, but beyond a question of doubt, farmers will find it anything but a profitable investment to try the experiment.

D. Z. E., Jr.

Jersey Stock in Maryland.

Mr. Henry D. Cranor informs us that he has established a small herd of choice registered Jerseys, at Whitesboro Farm, near Greensboro, Md., and will add to the same when he can obtain animals of high blood and of individual merit. Those he now has are, bull Tressillian, 3784, a son of imp. Nero, of St. Peters; Dam, Blue Belle of St. Onens, 6580. The heifers are Madge Wildfire, 1185, a daughter of Bertha Morgan, 4770, which cow made for Mr. Worth, of Media, Pa., last summer, fourteen lbs. and fourteen ounces of butter per week.

Rose of Tully Veolan, 11272, is a daughter of Philo, 1686, dam Averna, 4813. This heifer is a descendant of Mr. Thos. H. Fail's celebrated herd. Mr. C. further says:

"I have recently purchased from Messrs. Churchman & Jackson, Ingallston, Marion Co., Indiana, at a high price:—Fair Maid of Perth, 13705, sire LeBrocq's Prize, 3350, dam Eori, 5282, by Marius, 760, g. dam Eve by Prince of Orange, 184, by Saturn, 94, Sire of Alpha, 171."

Daily Growth of Fattening Cattle.

The Secretary of the Chicago Fat Stock Association has prepared a set of tables showing the average increase per day in the weight of ten of the best animals on exhibition lately between the ages of two and three years, and ten between the age of three and four years. The are as follows:

Exhibitor and breed,	Age in days Nov. 4, 1881.	Weight Nov. 4, 1881.	Average gain per day in lbs. since birth.
Over two and under three years:—			
J. D. Gillette, Wild Bill, grade Short-horn.....	827	1,935	2.21
J. D. Gillette, John Sherman, grade Short-horn.....	827	1,845	2.11
J. D. Gillette, Chance, grade Short-horn.....	780	1,635	2.09
J. D. Gillette, Cloud, grade, Short-horn.....	964	1,965	2.03
J. D. Gillette, Cherry, grade Short-horn.....	964	1,940	2.01
J. D. Gillette, Chub, grade, Short-horn.....	811	1,605	1.97
T. W. Hunt, Thad. Stevens, Jr., grade, Shorthorn.....	920	1,760	1.91
J. D. Gillette, Oakley, grade, Short-horn.....	964	1,755	1.82
David Grant, Johnny Bull, grade, Shorthorn.....	1,052	1,900	1.80
D. W. Smith, Col. Mills, grade, Short-horn.....	947	1,710	1.80
Average	915	1,800	1.98
Over three and under four years:—			
S. D. Gillette, Phil. Sheridan, grade horn.....	1,176	2,130	1.81
T. L. Miller, Conqueror, grade, Hereford.....	1,190	2,140	1.80
T. L. Miller, Batchelor, grade Hereford.....	1,190	2,090	1.71
I. S. Zartman, Hawks, grade, Short-horn.....	1,298	2,180	1.68
J. D. Gillette, Read, grade, Short-horn.....	1,268	2,140	1.58
Morrow & Muir, Frosty, grade, Shorthorn.....	1,105	1,850	1.67
J. D. Gillette, White Cream, grade, Shorthorn.....	1,237	2,070	1.67
J. D. Gillette, Pell, grade, Short-horn.....	1,268	2,010	1.66
J. W. Hunt, Increase, grade, Short-horn.....	1,217	2,010	1.65
John B. Sherman, Morris, grade, Shorthorn.....	1,309	2,150	1.64
Average	1,226	2,070	1.70

The Heaviest Steer.

The Kentucky *Farmers' Home Journal* has an interesting article on the subject:—

A Canadian-bred grand Shorthorn of remarkable size was once shown all over the country, and even taken to England and France for exhibition as a curiosity. This was nearly a half century ago, but the growth made by this fine bullock makes very interesting reading now. We give the record:—

Olympus was raised by Rev. Isaac Hubbard, Claremont, Canada, was calved January 4, 1832. Weight January 4, 1832, 874 pounds; December 22, 1833, 1,280 lbs. January 5, 1835, 1,800 lbs.; December 26, 1835, 2,350 lbs.; February 15, 1836, 2,910 lbs.; April 4, 1836, 3,370 lbs. This bullock was then taken to England, where, in 1839, being then seven years old, he reached the great weight of 4,000 lbs. His measurement was:—Length, nose to rump, 11 feet 10 inches; height, over withers, 5 feet 11 inches; girth, 10 feet 6 inches; breadth of hip, 3 feet 1 inch; breadth of shoulders, 2 feet 11 inches; brisket, from ground, 1 foot 11 inches.

The great bullock Gen. Grant was shown through this country a few years ago. We forget his exact weight, but some reader will probably remember it.

The heaviest bullock at the Chicago fat stock show in 1878 was 3,155 lbs.

In connection with heavy weights in cattle, it should be remarked that the improvement sought by breeders has not been in the direction of the greatest weight. They have bred with a view to greatest weight and best quality at the earliest age. In the selection of a sire, a bull showing rather fine bone, with even distribution of flesh, though smaller, would have preference over one with large bony frame and long legs, though the latter in five to seven years would probably attain more weight than the former. It has been found that a greater profit is in putting into market a bullock that matures when three and a half years old at 1,600 lbs. of good quality, than in one which matures at five or six years old at even a greater weight. The feeding cattle of the Bluegrass counties weigh 1,500 to 1,600 lbs. when three and a half years old, if they have been properly handled,

WHITEWASH:—A subscriber desires us to give a recipe for "*a wash or lime-paint that will do for inside walls and also for the outside of buildings.*" We referred to our scrap-book of many years ago, and find therein two recipes, which we remember to have tried and found them both excellent.

Recipe for Whitewash or Colored Wash.
1 bushel of stone lime, 4 lbs. salt and 2½ lbs. of white vitriol, slack with hot water. After standing a day or two, reduce by adding cold water to the proper consistency. To make a drab color, add 2 lbs. of Venetian red and half a pound of French blue.

Brilliant Stucco Whitewash:—Take clean lumps of well burnt lime, slake in hot water in a small tub, and cover it to keep in the steam. It should then be passed through a fine sieve in a fluid form to obtain the flour of lime. Add one-quarter of a pound of whiting or burnt alum, 2 lbs. of sugar, three pounds of rice flour made into a thin and well boiled paste, and one pound of glue, dissolved over a slow fire. It is said to be more brilliant than plaster of Paris, and will last fifty years. It should be put on warm with a paint brush. We do not remember how long it lasted but it was a long time.

Do any of our readers know anything about a mixture of cement and lime as a wash or coating for out-houses or fences? If so, would be pleased to hear from them.

Agricultural Societies.

FREDERICK COUNTY AGRICULTURAL SOCIETY:—At the annual meeting of the stockholders of the Frederick County Agricultural Society the following officers were elected for the ensuing year: President, Eugene L. Derr, (Dr. Fairfax Schley, having declined a re-election;) vice-president, Major A. D. Snauffer; treasurer, Calvin Page; secretary, Frederick A. Markey; corresponding secretary, J. Wm. Baughman; marshall, John T. Best. The financial exhibit for 1881 shows the receipts to have been \$6,961.95 and the disbursements \$6,642.93, leaving a net surplus of \$306.83, after the payment of a deficiency of \$924

from the previous years. In the face of many adverse circumstances the showing was considered eminently satisfactory.—October 10, 11, 12 and 13 is the time fixed upon for holding the next annual exhibition.

WASHINGTON COUNTY AGRICULTURAL SOCIETY:—The annual election for officers of the Washington County Agricultural Society was held on the 9th of January, resulting in the selection of following gentlemen:—President, Charles W. Heimrichouse; vice-president, Wm. Updegraff; secretary, P. A. Witmer; treasurer, B. F. Fiery. Directors, George W. Harris, B. P. Rentch, Elias Emmert, Dr. John T. Grimes; H. A. McComas, J. W. Stonebraker, C. F. Manning, J. B. Bansman, P. H. Wingert and George M. Stonebraker. The superintendent reported that he had sold the old grounds to Alexander Armstrong for the sum of \$3,150.

BERK'S COUNTY, PA., AGRICULTURAL SOCIETY at its annual meeting on the 7th of January, elected Jacob G. Zeir, president, Cyrus T. Fox, secretary, and other officers. Its next exhibition will be held at Reading, Pa., on the 26, 27, 28 and 29 of Sept. 1882.

New Publications Received.

NOTES FROM SUN-LAND ON THE GULF COAST OF SOUTH FLORIDA, by Samuel C. Upham,—price 25 cents. This is a neat little book written in a pleasant style, descriptive of the climate, soil and productions of

"The land of the orange and guava,
The pine-apple, date and cassava."

THE ILLUSTRATED BOOK OF THE DOG.—This admirable and beautiful work, is brought to its close in the present number. Every owner of a dog that is worth having, should possess a copy of this splendidly illustrated and judiciously compiled book.

THE FARMER'S ANNUAL HAND-BOOK FOR 1882, is the title of a neatly bound little calendar, and blank pages for a diary, accompanied with many useful tables and other matters of great value to any person engaged in farming. We recommend it strongly to our readers. Price only 50 cents, for sale by Cushings & Bailey, Baltimore, Md.

Journalistic.

THE BREEDER'S GAZETTE, edited and published by J. H. Sanders, Chicago Ill., is one of the neatest printed and ablest among our exchanges, and although just started, holds a rank equal to any of its long established contemporaries. It is a prime paper for stock-breeders. So far, it seems purely independent not wedded to any interest or particular breed of stock, but determined to do full justice to all. Such a weekly stock newspaper is well deserving general patronage.

THE SEASON.—Is an elegant Monthly, published by the United States News Company, 55 Chambers street, N. Y., devoted exclusively to the fashions. 24 parts, or two parts for each month. For each complete monthly part, with two colored plates—30 cents. Full patterns and minute descriptions are given, together with hundreds of wood-cuts, &c., make it an invaluable journal for the ladies of every household.

Catalogues for 1882.

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From **JAMES CARTER, DUNNETT & BEALE**, Seed Farmers, High Holborn, London, England. This is the handsomest and best illustrated catalogue we have ever seen issued by European houses. The American seed catalogues have been far ahead of any in the world for beauty of illustration and minuteness in descriptions and methods of cultivation of plants. This issue of the above London firm announces a great variety of new flowers and vegetables, some of the latter we will notice more specially hereafter.

From **PETER HENDERSON & Co**—Catalogue of "Everything for the Garden," for 1882. This is an admirable catalogue.

From **J. LEWIS CHILDS**,—Illustrated catalogue of new and rare flowers and vegetables. Queens, N. Y.

From **E. P. ROE**, of Cornwall-on-the-Hudson, N. Y.—Catalogue of choice small fruits and grapes.

THE DINGEE & CONRAD Co.'s New Guide to Rose Culture. A valuable treatise. They grow an immense number of roses and make them a specialty, at West Grove, Chester Co., Pa.

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MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Live Stock and Rural Economy.

EZRA WHITMAN, Editor,

COL. W. W. W. BOWIE, Associate Editor,

141 WEST PRATT STREET,

BALTIMORE, MD.

BALTIMORE, FEBRUARY 1st, 1882.

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THE MARYLAND FARMER is now read by more Farmers, Planters, Merchants, Mechanics and others interested in Agriculture, than any other magazine which circulates in the Middle or Southern States, and therefore is the best medium for advertisers who desire to extend their sales in this territory

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--FOR THE--

Maryland Farmer,

Terms \$1 Per Year in Advance.

The subscription price is very low, and we think any farmer merchant or mechanic would find it worth to him ten times its cost. As an extra inducement, we will send (free, as a premium,) to each subscriber, one of the following valuable books as he may select, viz:—

Kendall's Horse Book,

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Fisher's Grain Tables,

or Scribners Lumber and Log Book,

Either book is worth to the farmer more than the price of our Journal, and by enclosing \$1.00 the Maryland Farmer will be promptly sent you for one year and either of the books you may select, free of postage.

EZRA WHITMAN.

☞ COL. D. S. CURTIS, of Washington, D. C., is authorized to act as Correspondent and Agent to receive subscriptions and advertisements for the MARYLAND FARMER, in the District of Columbia Maryland and Virginia.

☞ Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

To our Readers and the Public in General.

An examination of the pages of the MARYLAND FARMER will satisfy any candid mind that it aims to convey useful, practical and reliable information to the agriculturists. It has no contracted Utica for its influences, no special hobbies or limited localities to cater to, but it tries to cover a broad field and afford information upon all matters pertinent to rural life, suited to all classes and to all sections. The information and letters we are daily receiving are certainly flattering, as showing the increased use of the MARYLAND FARMER to all who till the soil, or are in any manner dependent upon mother earth for support.

Since its first issue it has never failed to furnish thirty-two pages and often more, each month, of instructive reading matter. It has also always adhered to its original form, as it is thought to be the most convenient for present reading, and more so for binding and reference as a library book. It is handy with cut pages to examine as a Monthly, and when bound is a valuable repository of agricultural wisdom, in the convenient form of an octavo volume of four hundred pages.

When a journal has become popular, it naturally will become an advertising medium, eagerly sought after by those who desire to tell the world what they have for sale, consequently our journal has some months over 50 pages of advertisements, and hence some upon a casual glance may *suppose*, as those inimical to it *do say*,—"it is an advertising sheet,"—and so it is, we are happy to admit, because it is recognized as a good medium by all sensible advertizers.

While we boast of the number of advertisements, often so beneficial to the reader of a paper, we refer with pride to the paper itself during the last eighteen years to show that the reading matter in no one

month has ever been reduced below *thirty-two* pages, although the number for the month may reach ninety pages, including reading matter, illustrations and advertisements.

Our Chief Illustrations in this Number.

We give on first page a very truthful likeness of Cyclops, a choice bred trotting stallion. The artist has caught all his fine points except in the eye, which does not do justice to the full, fine expressive one which this horse has in a striking degree. We learn from his owner that this season he will be limited to 50 mares at \$50 each. Why should not Maryland breed a St. Julien or Maud S. for trotting, as well as other sections of the Union; she has now her *Crickmore* in the racing world, and before long will stand as in days of yore, at the head, and be the pronounced race-horse region of this country.

The picture also of Mr. Emory's beautiful cow, "Barrington Bates, 12th," which is in no respect flattered.

The life-like portrait of the "Lass O'Gowrie," we obtained from her importer Dr. Downey, of Frederick county, Maryland. We may be mistaken, but to our liking she is the most graceful and elegant performer we have ever seen in the line of shepherd dog duties. We regret that in our notice of the great "Tweed II," we should have mistaken the name of the ship on which he came to this country for his importer. The fact is, Dr. Downey imported "Tweed," and had him brought over in the Steamship *Greece*, to New York, and not as we were made to say, "Imp. by S. S. Greece." The Lass O'Gowrie is yet young, and no doubt will equal the famous Tweed II, when she arrives at the maturity of her discretion.

"It is truly a masterpiece of ingenuity in every respect and combines all the requirements of a *first-class Tether*."

Maryland Live-stock Association.

The inaugural meeting of the Maryland Improved Live-Stock Association, which has for its object the discussion of all questions pertaining to live-stock breeding, was held at the office of Major Frank Brown, Charles and Saratoga streets. Those present were: Dr. J. W. Dorsey, New Market, Frederick, county; D. M. Matthews, Dulaney's Valley, Baltimore county; J. F. McMullen, Frederick county; Charles E. Hand Catonsville; Alexander M. Fulford, Bel Air; G. A. T. Snouffer, Adamstown, Frederick county; E. G. Merryman, John E. Phillips, G. S. Watts, John G. Clarke, T. Alex Seth, Jesse Tyson, Baltimore county, E. B. Emory, Centreville, Queen Anne's county; Frank Brown, Carroll county; Edwin S. Hinks, Baltimore; F. Von Kapff, Govanstown; E. E. Legg, Kent Island; Dr. Wm. Henry DeCourcy, Queenstown. A constitution was adopted and signed. Telegrams were received from T. Herbert Shriver, S. M. Shoemaker, Baltimore; Robert Hough and Joseph B. Seth, Easton, asking that they be admitted members, which requests were granted. The association was permanently organized by the election of John G. Clarke, president; T. Alex. Seth, secretary and treasurer; Fred. Von Kapff, corresponding secretary; A. M. Fulford, G. S. Watts, J. F. McMullen, E. B. Emory, and Frank Brown, board of directors. It is proposed to hold quarterly meetings, when subjects of interests concerning the breeding of live stock will be discussed. The association will endeavor to have the American Agricultural Association hold its first annual exposition in this city in October of this year in connection with the Oriole festival. For this purpose the meeting appointed a committee to secure the co-operation of the various associations in Baltimore.

It was a co-incidence, that the very day of this meeting, (without knowing anything

of this convention), we addressed a letter to each of the different large Associations in the city, asking them to sustain with their influence and substantial aid, the proposition we made in our January number to have, during the present year in Baltimore, a grand Industrial State Exhibition, and that a meeting of representatives of all industries—agricultural, mechanical, mercantile, manufacturing, social, &c.—to consult together upon the best mode of procedure, to secure a great, combined exhibition of these several departments, showing the great resources, not only of Maryland, but of her sister States.

In connection with the pleasures of the Oriole, all industries should participate in the display of their several achievements, and the great agricultural community be gratified by a joint Fair of our State Agricultural Society and the American Agricultural Association, with its gigantic efforts, resources and immense premium lists.

For the good of the State, the especial benefit to the trade of Baltimore and the advance of agriculture—the source of all national prosperity—we are solicitous to have a grand Exposition this year in Baltimore, which may lead to or become the incipient step to the still greater and grander Centennial of 1892, as proposed by our cotemporary, the *Sun*. We are happy to hear that many of our largest merchants and leading minds of our community think our suggestion at least feasible, while they may doubt as to the ability of Baltimore being able to have a World's Fair in 1892.

Let us, at least, try to have a creditable exhibition of all the industries of Maryland this year, along with the Oriole, and the combined Fairs of the State and the National American Agricultural Associations.

“HOW DO YOU MANAGE,” said a lady to her friend, “to appear so happy all the time?” “I always have Parker's Ginger Tonic handy,” was the reply, “and thus keep myself and family in good health. When I am well I always feel good natured.” See other column.

Great Yield of Corn in Maryland.

In January 1881 Vandeford Bros., proprietors of the Democratic Advocate, offered a prize of \$20 for the best acre of corn raised by Carroll county farmer boys under eighteen years of age in 1881, and \$10 for the second best acre. Quite a number entered, but by reason of drought and wash-outs only a few remained to the end. The prizes were awarded lately, by Col. Wm. C. Polk, Judge Isaac C. Baile and Francis Warner, Esq., a committee, and the first prize was given to John Pouder, Westminster, and the second to Chas. C. Caple, son of W. H. Caple, near Bird Hill. Young Pouder raised 165½ bushels and young Caple 146 bushels.

If boys in Carroll county can do this much, why cannot the men-farmers in other counties surpass this great record of production? There is no doubt but that the average product per acre of corn and other grains in Maryland can be doubled and trebled by a little more judgment, energy and the application of practical and scientific knowledge, obtained by reading the MARYLAND FARMER and other agricultural books and papers. The farmer who does not read and study both the science and practice of agriculture, will never get "two blades of grass to grow where only one grew before." He will never get from a field or from one acre as much corn as these noble farmer-boys of Carroll obtained. The Messrs. Vanderford deserve great praise for their offer of so generous a premium to call out the energies of the young farmers.

THE American Fruit Drier Manufacturing Company have purchased the extensive shops recently vacated by the removal of Frick & Co., Engine Builders, into their new works, and the manufacture of the celebrated American fruit Evaporators will henceforth be conducted under the name and address of "American Manufacturing Co., office, Waynesboro, Pa.

FINE MUTTON.

Mr. George Rose, a popular and extensively known sheep butcher, of Baltimore, had during January a fine specimen of superior grade mutton from Ohio, exhibited at his stalls in the Baltimore markets. One was a fat ewe, weighing 140 lbs. nett. She was a cross of Cotswold and Bakewell, evidently a three year old that had never bred but had been well kept during her life. The Messrs. Wagner, proprietors of the *Green House*—the Delmonico of Baltimore—spare no expense in procuring whatever is remarkable, rare or delicate, and first in season, consequently secured some of these superior mutton. On the leg of the choicest of this lot, we dined by invitation of the Messrs. W., and we were much gratified. We are more than ever wedded to our former conviction that such delicious meat can be raised by our farmers at less cost than any other of the domestic meats. Why shall not such nice, wholesome, rich food be more common, and enter more largely into the economy of every household in the land, whether it be that of the wealthy or the economical cottager?

NOTICE.—Persons returning the Maryland Farmer for any reason, will please give their full name and Post Office address otherwise it is impossible for us to tell from whom it comes, as the wrappers of papers have no post mark upon them.

THE *North American Review* presents in its February number, Part III, of its series of articles on "The Christian Religion." It is from the pen of Geo. P. Fisher, the eminent professor of ecclesiastical history in the Yale Divinity School,—as thorough a scholar and as able a defender of the Christian faith as this country affords. A powerful presentation of the claims of Christianity has been made.

THANKS.

We return thanks for the many kind compliments paid our Journal by our subscribers when renewing their subscriptions for 1882. Among the hundreds, we select at hazard only one or two.

H. P. of Washington city writes:

"I find the *Maryland Farmer* more interesting and better adapted to this region than the agricultural papers published at a distance."

J. H., of South Carolina says:

"The *Maryland Farmer* is one of the *indispensables*, my wife says so too."

J. B., of Michigan, says:

"I can tell the public that the *Maryland Farmer* is one of the best agricultural papers that is published."

W. McK. P., of Maryland, writes:

"It improves yearly. This year it is superior to any yet. I hope it will continue to prosper."

W. H. Y., of Conn., writes:

"The *Maryland Farmer* takes the cake in its new dress. It is really a beauty, somewhat unique in style, but at the same time attractive. Nor is its attractiveness confined to its exterior, for within its covers is a harvest of rich thoughts."

Correction.—We regret that in our report last month of the Louisville Poultry Show, we are made, by the types, to credit a first premium for a Brown-red Cock, to Dr. W. Worthington, when it should read to Mr. Dye W. Worthington, Howard Co.

Messrs. Hiram Sibley & Co., offer \$500 cash in prizes for the best Essays on Gardening in the Southern States. Full particulars can be obtained by addressing Hiram Sibley & Co., Rochester, N. Y., or Chicago Ill.

THE CATTLE TETHER.—"It is a silent, but faithful sentinel always on duty. I consider it cheaper than *herdsmen or fences*, a trial will convince the most skeptical."

If the mother is feeble it is impossible that her children should be strong. Lydia E. Pinkham's Vegetable Compound is a perfect specific in all chronic diseases of the sexual system of women. Send to Mrs. Lydia E. Pinkham, 233 Western Avenue, Lynn, Mass., for pamphlets.

HORTICULTURAL.

For the Maryland Farmer.

The Crescent Seedling Strawberry.

This remarkable berry has worked its way, upon its own merits, quietly and steadily, until it has become one of the most valuable in the large collection of new berries. It was first sent out by Mr. H. H. Smith, of New Haven, Conn., who claimed that it had produced upon unmanured ground at the rate of 14,000 quarts, per acre; since we have become acquainted with it, we are inclined to think this statement not improbable as it has approximated 10,000 quarts per acre, upon my own observation. It is well known that pistillate varieties are far more prolific where properly fertilized than are the hermaphrodite sorts—that is, such as have perfect blossoms. To insure best results it should have some strong, staminate sort planted among it, say every fifth row. It is well to select a late blossoming sort, so that both may be in the same stage of bloom; it being one of the Crescent's good points to bloom late, thus avoiding late frosts. This, however, does not prevent it from being one of the earliest varieties. One grower pronouncing it the earliest out of ninety sorts grown upon his ground. Although a pistillate it will, unlike most of its kind bear alone, but the berries will be less in quantity, besides being small and knotty. This fact is probably the reason why so many are prejudiced against it. A knowledge of its requirements remove this, however. Its ease of cultivation make it one of the most profitable to the market gardener; as it will grow upon almost any soil, and requires nothing more than an occasional dose of manure or other good fertilizer. Such is its vigor that if given a chance the first season, it will completely cover the ground to the extermination of weeds and grass, requiring only to be renewed only once in five or six years. This should also make it a favorite with those who cultivate for table use as it ranks among the best for this purpose. It has been called a sour berry by some, but it must be borne in mind that it is red before it is ripe; if allowed to get fully ripe it is one of the best, having the peculiar aromatic flavor of the wild sorts. In regard to its size much depends upon the thick-

ness of the plants, the nature of the soil and the sorts used to fertilize. My experiments lead me to think that it should be planted near some larger sort such as the Sharpless, as this tends greatly to improve the size. The Crescent is not classed among the large berries, but specimens grown upon my place the past season were as large as the largest Wilson's, averaging during the season much larger than the latter.

In regard to its shipping qualities, I must confess that I was at first unfavorably impressed with it, but experience during the past two seasons has proved it to be a good shipper, *standing up* and keeping its color with the best, selling for more than the Wilson. In color it is a bright scarlet, with a glossy green cap which makes it one of the most beautiful berries in the crate. It is oblong in shape and uniform in size and color. ARUNDEL.

Orchards, Pigs and Clover.

Corn is perhaps as well suited to our apple orchards until the trees are of good fruiting size as any crop we could plant. The cultivation required for corn is such as also suits the growing trees, and it ceases at a time when they should not be pressed to further growth for the season, allowing them to rest and ripen for winter. The corn also gives the necessary shade which the trunks, while young, require. Artichokes are also good to be planted in the tree row—not nearer to each tree than four feet.

Pigs are the best stock to have access to the orchard. They will do the most good and the least harm. They may be given free access to the orchard as soon in Autumn as the corn is cribbed. They will glean the corn field, harvest the artichokes and give the land a pretty thorough fall plowing. They will also spread much valuable manure and destroy millions of hurtful vermin in the larval state. The artichokes promote the health and rapid growth of the pigs, which, without other food, will be half fattened by the time the frost stops their rooting. Then liberal "cornering" soon fits them for the butcher.

When the orchard is older, the trees well grown and required to fruit, the crop may be changed from corn to clover. This

does not promote the rapid growth of the trees, but it increases the fruit, and is very beneficial to the soil and young roots of the trees, protecting also the whole surface from the scorching sun in summer and severe frosts in winter. At the same time it affords the real paradise for the pigs, which may now occupy the orchard through the spring, summer and autumn. A large number will find ample, nutritious food in the succulent, growing clover, upon which they will thrive and grow rapidly, doing no hurt to the trees, but much good by catching bugs and worms, a thousand boys or men would never find. The apples which drop prematurely, contain worms which caused their fall. The pigs pick up this worthless fruit and with it eat the worms and thus prevent an increase to millions more. On this fine pasturage the pigs are so well grown as to be ready for sale in September, as feeders, and all the growth is profit. "JOT."

In Rural New Yorker.

Chemistry in Fruit Growing.

Abstract of an essay, read before the Potomac Fruit Growers Association, by Col. D. S. Curtiss:—

Animal and vegetable creations have the functions and power of reproduction and growth—they have organs for receiving and assimilating food or ingredients for increase of size, structure, perpetuation; hence, they are called organic creatures.

When these vegetable and animal substances are burnt to ashes, nearly all of their weight from four-fifths to nine-tenths passes off into the air as gasses, vapor and water; and the small remainder is ash, composed of various mineral matter, as lime, potash, iron, soda, silica, and some others, known as inorganic substances; and are supposed to be derived from food, soils, etc., where they grow.

But the organic portions, of the animal and vegetable bodies are supposed to be derived from the air and water, which surround and in part nourish them.

Vegetables, like ourselves derive much more of their food and nourishment from air and water—as well as earth food.

Like us they are liable to disease and enemies, and are to be treated much in the same way for their remedy.

Their diseases and ailments come much in the same manner, and from similar causes, as our own, which is generally from three circumstances: namely—neglect, improper food and nourishment; and from lack of the same, where and when needed.

If the soil, which is the home and kitchen of the vegetable, be put in a proper condition, of temperature, dryness, porosity, so that the air, the oxygen and other portions of the atmosphere and moisture, can circulate fully and freely about the roots in their home, they will flourish.

A damp, mouldy kitchen, with stagnant water about the floor, or a tight, suffocating dining-room, lacking ventilation, would not be likely to induce vigorous appetites, or promote delightful health, though it might give ease and sloth to the cook; or, a close uncleaned barn, with surplus nitrogenous fumes, continually rising, might give idleness to the stable boy, but, it would not increase the strength and liveliness of the horses; and for similar reasons, undrained, unventilated water clogged soils, cannot long give healthy trees or sound fruits, which stand in it.

A foot-bath in the cold or steaming tub, may be serviceable to a man for a few minutes; but he would not therefore, wish to sit all night, with his feet in a mud-hole.

And it would be no wiser to leave stagnant water to settle and stand around the roots of your fruit trees, or other plants, to chill and give them mildew, as the mud-hole would give the man ague and rheumatism; and one result is equally sure with the other, a proper use of moisture is equally necessary to both; but its suitable application, in both cases is, to be on the move, and that downward—not stagnant; not to stand stagnant and half putrid, around the pedicels of one, or the roots of the other.

Pure water is best, too, in both cases; stagnant half dead water, deprived of all or most of its oxygen gas and full of spores of fungus is as useless, nay as hurtful to plants, as water with too many sticks and nips in it, is for animals—man.

The small proportion of soluble silica, iron, potash, phosphatic matter, &c., which plants get from the earth is not available to them at all, unless that earth is properly prepared by being made fine, friable and porous, so that those effective solvents and digesters, the air and water, can freely and easily circulate through all the soil, to dis-

solve and reduce to liquid or fluid state, those minerals, so that the little roots and rootlets can absorb and take them up, and send them flying through trunk, leaves and flowers for the plant's health and growth; which they cannot otherwise do, any more than man's nature can fill his veins with healthy blood without masticated food.

But, if the opposite be the case, if they lack proper or sufficient ventilation and moisture, and needed ingredients in their kitchen or laboratory, the earth, for their healthful nourishments, they will languish, and become sick, blasted and die; without suitable nourishment, ventilation and drink animals and plants will fail under the same conditions.

From various analyses, which have been made by different chemists in different countries, it will be seen that plants, fruit trees and others derive very small portion of their weight and substance from the earth or soil; but they must absolutely have that little in proper conditions in order to enable them to subsist from the air.

Neither vegetables nor animals can avail themselves of the vital properties and support of the air and water, unless they have proper relations and standing with the soil to enable them to appropriate the elements of the air in natural and required conditions of temperature and moisture.

Then, from this we see that the first step towards securing healthy vigorous growth of all trees and plants, whether for utility or ornament, is proper attention and preparation of the soil where they are to grow; and to do this, we must know something clearly of their inorganic nature and properties; in this proceeding we shall find that the form and texture of the soil is more important than its chemical ingredients, as but little substance is taken from the soil.

As before stated, the ash of all plants, that is, the portion of their substance derived from the soil, is a very small part of their structure, but small as it is, it is just as important to the existence and health of the plants as the large mass of organic matter which they derive from the atmosphere; just as the very small portion of iron in the blood of animals, though minute, it is just as essential to health and growth as the large quantity of glue in the cords, or the fat on the ribs, or the active muscles.

One of those important mineral matters in plants, derived from the soil, is silica, (dissolved sand) which gives the firm, glossy coating to straw, grain and some fruits; and without which there would be but little strength.

Fruits in their natural state are nutritious and refreshing, and when eaten socially, produce pleasant effects that have no unpleasant after claps; but if they are artificially changed—converted into maddening drinks, the use of them become disastrous. But, in the transforming of their healthful, delicious juices, and their nutritious qualities into intoxicating drink, by fermentation or distillation, we at once see one of the delightful creations of nature converted by chemistry into the most degrading and destructive agencies known to civilization.

Peaches become the vicious peach brandy; apples become the crazing apple-jack, the most fiery of all drunk making drinks; even pears are made into vile pear wine.

And grapes and grape juice, the most sacred and famous of all, honored in religious and social ceremonies, when used pure and unfermented, produces only good, joyous and healthful effects; but reduced to alcohol and taken into the stomach, this beverage, once good wine, leads to the most vicious and degrading acts of which humanity is capable, and to satanic frenzy of the most revolting character. And yet, when eating and examining grapes or other fruits, who can see or imagine that such deadly, corrupting elements are contained therein. They are perfectly hidden and unseen, and hence Shakespeare declared, "Oh thou invisible spirit of wine we will call thee Devil."

Not only that, but the monster author of all evil—whatever his name—goes down to the lowly bed of the humble potato, in the earth, and has brought up that nutritious tubor, the Frenchman's POME DE TERRE, and crushed it into fire-water to crush and burn the human race into sadness and cinders!

While the author of all good has clothed the trees and vines with delicious fruits for our delight and nourishment, and filled the earth with wholesome food for our sustenance, the arch-enemy has pulled them down from the trees and dug them up from the earth to prepare both for our destruction and man has constantly aided in the nefarious work, or like the recreant apostle,

he has stood by all the time, consenting thereto!

Even the modest little black cherries of the woods, the pleasant and legitimate food of the birds, are gathered by the bushel and drawn into this terrible work of maddening and murder, to make cherry bounce and cherry whiskey, a deception and hidden curse, under the plea of being medicinal, more of that "invisible spirit" to which Shakespeare gives the emphatic name of a big D. We rob the birds of their just and proper food in the forest, and then scold and kill them, if, in their want and destitution they come to draw a few rations from our gardens and orchards. But Divine retribution follows this drunkenness and drunk-making with terrible penalties, this prostitution of wholesome fruits, by terrible sorrow and suffering to all classes—rich and poor.

But there is new hope with the recent new and improved methods of DRYING AND PRESERVING our surplus fruits; our increased facilities for using and saving them has removed all necessity of converting them into destructive beverages; and I earnestly hope, as no doubt you all do, that the time is not distant when none of them will be diverted to drunkenness, but that all of the fruits will be used as the Divine Creator designed, only for food, health and innocent cheer; and, also, that the era is near when all classes, even the poorest, may have abundance in all seasons and all climates, and when drunkenness from fruit juice will no longer be seen. This is a result and happy consummation that new fruit drying processes may speedily secure.

Nursery of Ellwanger & Barry.

Attention has been directed to the advertisement of the celebrated nursery firm of Ellwanger & Barry, Rochester, N. Y. They have the largest and finest collection of fruit and ornamental trees in the United States, and every planter should consult their new catalogue, which is mailed *free*, on application.

Health, hope and happiness are restored by the use of Lydia E. Pinkham's Vegetable Compound. It is a positive cure for all those diseases from which women suffer so much. Send to Mrs. Lydia 233 Western Avenue, Lynn, Mass., for pamphlet.

For the Maryland Farmer.

Cutting Bushes.

New England soil is, in many places, exceedingly fruitful of the natural product bushes. A field that has been under careful cultivation for years, if abandoned, or left entirely to itself for a few years, shows unmistakable signs of return to a seemingly natural condition, or one of fruitfulness of bushes. If then, this is the average tendency of even cultivated fields, it is not surprising that the rougher and rocky portions of surface, those which, without a great expenditure of labor, are incapable of being brought under cultivation, should present a formidable frontage of large bushes.

It is not the part of true economy to allow these unproductive tenants of the soil to hold a complete ascendancy, and therefore arises the necessity for considering the manner of subjugation.

There is many a farm in our loved State containing fields that from roughness has deterred any efforts at cultivation; covered over with bushes, whose annual growth has regularly been clipped by the mower's scythe, and as far as appearances are concerned, are no nearer the end of their existence than they were when owned and shorn by a preceding generation.

The range of possibility admits of the anticipation of a time when our whole country, upon its surface, shall "bud and blossom as the rose," but this millennial day will never be brought about by "cutting bushes." There are many kinds of labor upon a farm that operatives delight in; but it is an exception, and an exceedingly rare one too, to discover that man, who, from pure love of the occupation, will shoulder his scythe and march along, keeping tread to his whistling, to the bush pasture, there to find enjoyment and solace to unpleasant thoughts.

It is not probable that in "days gone by" many a bright-eyed lad has had a love for farm life quenched by being forced to cut bushes with the old "half-length scythe," day after day and week after week, following the haying seasons, when, of all times, there should be a season of recreation? Fortunately, the growth of a trade in whortleberries has caused a partial "cessation of hostilities," and many a field has been suffered to produce its bushes for the fruit which is furnished thereby,

But what is to be done in the case? Abandon the cutting of bushes, especially upon all the rougher portions of the farm, allowing these portions to grow up to timber, thus practically sympathizing with those philanthropists who mourn the destruction of forests.

If death and destruction to the bushes is desired, nothing short of the plow will accomplish it, and in the smoother portions that are required for cultivation and pasturage, it must be resorted to. If there is no demand for additional acres then wait till the demand arises. The time will come in this country when every man will have his few acres to till. Our population is increasing and the days are not many in which large cultivators are to be depended upon for supplies. It is no uncommon thing to see the industrious Irishman building his little house upon one of these bush fields, because he can purchase cheaply, which, in a few years, is transformed into a little, earthly paradise by the diligent labor of his own hands. Rocks and bushes are all removed, and the virgin soil, unfettered, is lavish in her efforts in the production of rich vegetables. This is the mode of redemption of the, at present unproductive and unfruitful portions of the earth. May the time be hastened in which its fulfilment can be realized. WILLIAM H. YEOMANS.

Columbia, Conn.

POLITICIANS talk about *Reform*. We think that wherever there is extravagance or abuse of power or office there should be reform, but we believe that every intelligent farmer and planter of Maryland considered the pittance heretofore appropriated by the State to agricultural societies and to the agricultural college was not extravagance, but a proper and commendable expenditure yearly by the State to foster agriculture and spread agricultural knowledge. The withdrawal of these appropriations by the last Legislature was neither wise nor such a measure of reform as the people wanted or expected. We trust that the present Legislature will take a more elevated view of *reform*, and restore to the college the \$6000 which was granted heretofore annually to it for the tuition of Mary.

land farmers' sons, in the several departments of learning and in practical agriculture, and will also restore to the several agricultural societies of the State, the little sums heretofore given to aid them in their respective good works.

There is no State in the Union but what appropriates such sums toward the progress of agriculture, as by their large amounts, places Maryland, by comparison, in a most unenviable position. There is such a thing as saving at the spigot and wasting at the bung

Maryland Agricultural College.

The following are extracts from the excellent report of Capt. Wm. H. Parker, President of the Maryland Agricultural College to the Board of trustees, adopted December 9th, 1881, and submitted to the Honorable the General Assembly of Maryland. Had we more space we would gladly submit the whole report:

"The College opened on the 20th September, since which time we have had thirty-six students, representing eight counties of the State.

In consequence of the withdrawal of the State donation of six thousand dollars, it was found necessary to increase the charges to two hundred and seventy five dollars per year, in lieu of two hundred dollars. This accounts for the reduced number of students.

It gives me pleasure to say that the several departments are in good working order; that the prescribed curriculum is being carried out, and that professors and students are working harmoniously.

It is the opinion of the faculty that we have now the best school we have ever had, and that the College generally is in better condition than ever before.

All the work on the farm is now done by the students.

Great diversity of opinion exists as to what an agricultural education should be—whether it should include the ordinary branches of a collegiate education or consist entirely of subjects relating to agriculture alone, such as mineralogy, geology, chemistry, &c. For my own part, I can

see no reason why the farmer should not have as good an education as the doctor and lawyer. This would seem to have been the idea of the originators of the law of Congress, passed in 1862, which says: "The leading object shall be, without excluding other *scientific and classical studies and including military tactics*, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the Legislature of the State may prescribe, in order to promote the *liberal* and practical education of the industrial classes in the several pursuits and professions of life."

Some believe that all graduates of agricultural colleges must necessarily become farmers. I know no law for this. As a matter of fact most of our graduates teach school for a year or two, though some are farmers, engineers and doctors.

It has been said and believed, by those who will not take the trouble to inform themselves, that our graduates generally enter the army or navy. As another fact I will mention that since I have been at the College not a single graduate has entered the army, navy, marine corps or revenue marine of the United States.

We are required by the law under which we received the United States land scrip to teach military tactics. We teach just enough to cover the law. We have a company drill of forty minutes five days in the week: this does not interfere with the study hours.

We are much in need of a corn crusher and reaper, but cannot afford to purchase this year."*

*If some one will donate the reaper to the College we will donate the corn and cob mill.

Farmers Convention of Montgomery County, Md.

Held at Sandy Spring, 12th January, 1882, was a success. Owing to the sickness of Mr. Farquhar, the Secretary, we did not receive the report until too late for our columns this month. But the report is excellent and will appear in our next issue. We return thanks to the officers for the trouble we have imposed upon them, and to Mr. Farquhar in particular.

Maryland Live Stock Association.

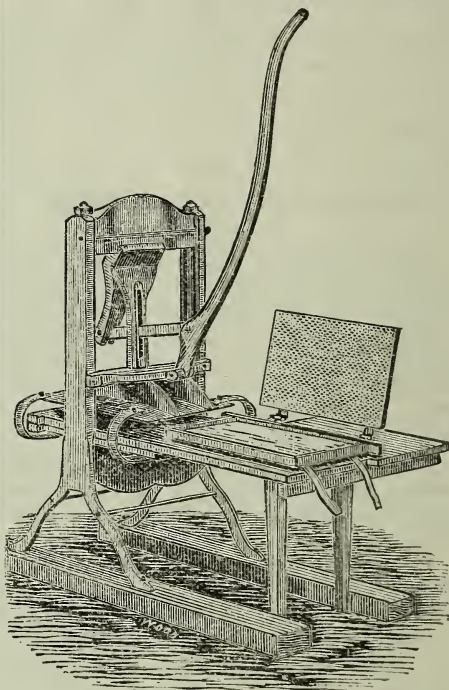
It will be seen elsewhere in the columns that such an association has been, at last, formed. It has been a great want for years and we rejoice that this large and daily growing interest in this State has at last felt the importance of combination and establishing an institution by which they can in many numberless ways aid the grand purpose in view—that of helping the progress of breeding, keeping, feeding, &c. of live stock and advancement in the best system of originating new breeds, while keeping pure the several families of the already well established, pedigreed classes of the different domestic animals.

No State of the Union, at present offers a better field for the active usefulness of such an association than Maryland. In proportion to her borders, not one of the States, to-day, possesses a greater number of purer blood, or intrinsically of greater value, animals of the different classes of farm stock than is to be found in the limits of this State, which has, ever since colonial days, been celebrated for its race horses, its mutton and cured bacon hams. We venture to say that there are more pure-blooded domestic animals in Maryland, according to her rural population than in any of her sister States. But these choice animals are so scattered that they are not known and many not appreciated in the neighborhood where they have been conferring immense benefits for years past.

This new organization will, no doubt, bring to view hundreds of gems now resting in the ocean of obscurity, and thus display to the world one of the hidden resources of our State. This association, if well managed, will increase the attention of our farmers to breeding good stock, and turn the eyes of hundreds of foreign buyers to the quiet land of the Chesapeake, where, like its oysters, are to be found hidden away in silent seclusion, treasures that tempt both the covetous and epicurean.

THE APIARY.

We are indebted to Mr. Bowers, of Va. for the following cut, and article on Comb Foundation. It will attract the attention of all our readers who are concerned in bee keeping, whether for profit or pleasure.

The Given Comb Foundation Press.

This Comb Foundation Press was gotten up by D. S. Given, of Hooperston, Illinois. The reader will readily understand it almost without any explanation. In front will be seen an ordinary brood frame, this frame is supposed to have fine hair wire woven across it from top to bottom, at every two inches. In the cut the frame is laid on a copper die, having cells and wall of honey; a second die is shown, hinged to the first like the cover of a book, a sheet of wax, large enough to fill the frame is then laid on the wires. The die book is now closed and pushed under the platen of the press. The handle is now brought down and the sheet of wax is made into comb foundation with the wires in the centre of the wax. This press is a very ingenious piece of work, it has four heavy

springs to raise the platen. It is a powerful press and has a pressure of about 300 lbs. to the square inch. We have made foundation on it with the base as thin as the finest tissue paper, or about 12 square feet to the lb., and have made it as thick as the common straw board of commerce or 4 square feet to the lb. The wax worked on this press is accepted by the bees sooner than any other I have ever tried. We would no more do without the use of comb foundation, than we would do without our mowing machine or wheat drill. When bee-keepers learn the value of comb foundation, they will find that they cannot make bee-keeping a success without it. It is the corner stone of modern bee culture. We aim to not let our combs get over two years old, then melt them into wax, then press them into foundation, by this way we always have nice, straight combs that we can handle and take out at will, hence, we have had none of those thick black combs that is of no use to the bees whatever. We use a small, triangular piece of foundation in all of our surplus boxes; would rather have it than small bits of comb as it makes better starters.

J. LUTHER BOWERS.

January 10, 1882.

LADIES' DEPARTMENT.

Chats with the Ladies for February.

BY PATUXENT PLANTER.

"From *Febru* (meaning pure,) this month doth claim
To take its very classic Roman name.
Aquarius now to Pisces yields the sign,
And all the world kneels to St. Valentine."

Signs of Spring.

"Though meadows still are sere and hillsides dun.
Nor in the forest any bud is seen,
Yet, the wet moss beneath the oak is green
Where gleams with kindlier ray the setting sun.
And through the trees the distant hills are fair,
Touched with a tint of Spring's ethereal blue;
In sunny pastures streaks of emerald hue,
Show where a brook is wandering slowly there.
And sudden, on a soft and starless night,
The myriad voices of the insect world
Wake from their Winter sleep with new delight,
And a far river, with its waters whirled,
Doth wildly rush, loosed from its icy chain,
Turbulent, glad—and Spring hath come again."

This month often gives strong signs of Spring, by the sap starting in the trees—the swelling of buds; peeping up sometimes through the snow, the crocus and other venturesome little flowers. The blue-bird and robin red-breast, give us short calls, or come to stay. This too, is the recog-

nized love month of the birds. All the feathered tribes select their mates for the year, and their lovers' quarrels are amusing to the student of natural history. There is as much difference among birds as to habits and rules of society as exists among men. The males of some of the families or classes, select one wife and are true to her, while she resents any improper attentions from another, whom, if detected in any flirtation will be severely punished by the jealous husband. Others are like Mormons or Mohamedists, and practice the principles of polygamy, the older, braver and stronger, having the largest harem—and are as watchful and jealous as rich old Turks. Tradition says that the 14th of the month is the great day for bird engagements, and it has become the custom for ladies also on that day to select their valentines, and thus, "*all the world kneels to St. Valentine*"

Every notable house-wife will complete during this month her poultry arrangements, and her pigeons, geese, ducks and chickens will be selected with due care, to yield profit and pleasure during the year, in eggs and young birds for the table or market. Bees should be carefully examined and the moths destroyed or they will starve the bees.

This is a good time, if it has not been before, to assign to each young member of a family, some one or more duties to be performed daily, such as attending to the dairy, poultry, bees, the dove-cote, the flower garden, &c., and let each one have the hope of reward for these duties, well performed. Nothing stimulates the human mind more than the expectation of reward for attention and care bestowed on something in which he or she has a quasi or real right of possession or property. To be the owner of a horse, cow, sheep or hog is pleasant to a boy or to know that he may enjoy the usufruct of such property and have the gains as his own, to spend as he may choose, is an incentive that rarely fails to call forth all his energies of mind and body, and above all, is calculated to excite a love of rural life, and endear to him the old homestead.

Parents, give your children the incentive to be industrious and to practically learn the art of managing for themselves, of early thought as to providing and caring for their own support in case it should become necessary. It teaches them economy and they realize the cost of living, while they plan how they can realize the most from their special enterprise. Gradually they become accountants and understand the fluctuations of the markets, and eagerly embrace the op por-

tunity to sell when prices rule high, and to buy, when what they need is at the lowest figure.

Mothers should, no matter how wealthy they may be, insist on their daughters practicing all the minute details pertaining to house-keeping, from the simple act of knowing how to sweep and clean, up to the science of bread making and cooking meats. A world of philosophy is practically demonstrated in the humblest kitchen, and in *these* should science—book knowledge—be taught and blended with practice. The child will never after forget such scientific theories thus enforced in practice, the one illustrating the other. Never let them believe it is only an art required by long practice, and which comes to some naturally and to others never will come. Let them understand that every operation about the house is based upon some scientific reason or principle. Biddy may sweep or cook to perfection, without being able to give a reason why she does this and that in a certain way, to effect results; but Biddy has acquired it by following exactly the directions of others, and they have had it handed down to them from some one who learned it from philosophical theories, or who unconsciously stumbled upon a great scientific principle. Therefore, let the light of philosophy furnished by books be shed and practically illustrated in the kitchen. Such girls will become perfect house-keepers, having intellectual acquisitions reduced to practical working.

There is science in making coffee—bread-baking—washing—butter making, and in every little or big thing in practical household duties, and such science should be taught our girls, both theoretically and practically if we would have them grow up into noble women and accomplished mothers and home rulers.

For the Maryland Farmer.

Hints about House-keeping.

BY COUSIN MEHITABEL.

[Continued from page 31.]

Domestic Surgery, &c.

Every woman should know enough to be able to bind up the numerous cut fingers, the bruises, burns and like wounds that will inevitably befall her boys and perhaps her girls. It is a neat bit of work to put on a bandage nicely, and a little practice will soon show how it is done. Care must be taken not to put it on too tightly.

White of an egg, starch and cream, dry flour, linseed oil and lime-water, grated potato and cas-

tor oil. The potato acts like magic in allaying the smart. Castor oil is very soothing and healing.

Tincture of arnica is excellent for cuts and bruises. For sprains and severe bruises, apply cloths wrung out of hot water, and bathe with water as hot as can be borne.

For earache warm a little sweet oil and a few drops of laudanum in a teaspoon. Drop a few drops in the ear and put in a bit of warmed raw cotton or wool.

For chilblains, bathe with one part of muriatic acid to six parts water. For felons or swellings make a poultice of Castile soap scraped into new milk and simmered till it forms a paste the thickness of rich cream.

For stings of insects, apply soda wet with cold water. Bread and milk poultice is a safe and soothing application for almost any wound. In case of a wound in the foot from any blunt instrument, use beef's gall or tincture of lobelia to lessen the danger of lock jaw.

Always keep on hand adhesive plaster and a needle and fine white silk. Keep hartshorn, camphor, laudanum, peppermint and Jamaica ginger, syrup of rhubarb, tincture of lobelia, sweet and castor oils, Scotch snuff, mustard and alum always in the house where there are children. Some one of these remedies may be wanted at a minute's notice.

The Dairy.

The care of the dairy is the first and most important of the outside duties of the housekeeper. Where many cows are kept and the dairy the chief source of profit to the establishment, the work is very heavy and laborious and is generally carried on by men. In some such cases it may not be necessary for the mistress to take any part in its affairs, but generally the dairy needs her watchful supervision to insure that its apartments, utensils and all its surroundings are kept *perfectly clean*, cool, fresh and thoroughly ventilated. As there is such a difference of opinion as to which is the best manner to obtain from milk the greatest amount of cream, and as every keeper of a dairy has his or her own ideas about the matter, I will not venture even a suggestion on that head further than to say, that whether the pans used be deep or shallow, the water in which they are placed should be always as deep as the depth of the milk in the pans. With the cream vessels this should be especially observed. A hole must be made in one end of the water trough of such a depth as to take in the cream jar up to its neck. Thus, the whole body of cream is kept at the same temperature, and free

from any influence of the air. Cream for churning should be well stirred, at least once a day. In hot weather it should be stirred twice or thrice a day.

In winter, skim cream perfectly sweet, and before it has acquired any rancid or bitter taste, set each skimming on the stove and let it get boiling hot but do not let it boil. Let it be well cooled before it is poured into the cream jar. Treated in this way the cream *churns* almost as easily in winter as in summer. It is a much better plan than to heat the milk. Heating changes the taste of milk so as to render it disagreeable for the table.

There is great difference of opinion about washing butter. When the weather is very warm, the butter is better to be well washed in the coldest water obtainable. In cool weather, when the butter is firm and waxy it does not need washing. I have never been able to see any philosophy in the idea that washing injures the keeping quality of butter. Water can have no chemical effect upon the butter, as it does not mix with it in any degree. After butter is salted it should stand from 12 to 24 hours, and be worked a second time. Any one who has never made butter in this manner will be so well pleased at the good result of a trial of it, as to be unwilling to go back to the one working. In the matter of utensils for dairy use, there is a great variance of opinion, but in the long run, tin is best, weight, facility for cleanliness, durability, everything taken into consideration. A tub is better than a wooden bowl for working butter. The bowl is more convenient shape but is very liable to split in being wet and dried so frequently. A short handled ladle is much easier to handle as a butter worker, than a flat paddle. Tin is far preferable to wood for milk buckets. The outside of milk pans should be well painted.

For the Maryland Farmer:

Butter Color Recipe—Pink Eye, &c.

Perhaps the ladies who chat and those who read the chats would like to know how I got along this winter after my disastrous year. I am doing very well. I have paid my tax in due time and saved percentage on collection. I have plenty to live on and carry on my improvements. My stock is in fine condition and I am buoyed up by the farmer's hope of another and better year coming for crops.

I have at last found, after trying many, a perfect butter color, and I am glad to tell the ladies,

for at this season butter will come pale. It is Hanson's Danish butter color. So natural looks my butter that even my own family do not suspect it is colored artificially. I have never yet bought any high priced cows who have a pedigree, but I have carefully improved my cattle and bred them well, so I am quite proud of them, and they pay. I readily sell my butter, for five—and during the warm weather, ten cents more in the pound than butter commonly sells at. I think the superiority of butter is due in a measure to the treatment of the cow and the temper of the herd. Cows that fight, run, kick, and are of an excitable temperament, do not make as good butter as the lazy cow who calmly moves around and goes quietly in her stall when coming from pasture or exercise. People who do not have nice herds of cattle in this section are in fault, for it is a good grass country, with hill and dale and innumerable springs that fill pure streams, and plenty of woodland for shelter. There can be a shelter belt or grove in every field. Some say the trees draw the land, so they do, but they draw the stock too, and land is cheap.

I hear many complain of injury to their swine by worms, the best remedy I know is spirits of turpentine given in swill. With me, spirits of turpentine is the pig's medicine, and I never lost a pig in my life. For colic in horses I give a drench of ginger and molasses. I have cured some severe cases quickly. Last winter, I had a cow taken with a severe ague. I drenched with strong ginger tea and molasses and the chill was soon over. I use the molasses to prevent effect of the ginger. Two years ago, when my horses had epizootic, I gave them mustard and ginger chop of bran and oatmeal, and the disease went very light with them; all this, the gentlemen will say, is an old woman's treatment—well, I promised to tell how a woman farms, and I find my remedies do quite well. Will some one tell what to do for Pink Eye—it is a disease I dread, because I do not understand it. I see in the Florida Agriculturist this treatment for *pink eye*. "Drench 2 oz. Spr. Tur. and 6 oz. raw oil—ball 4 dr. aloes. 3 dr. potsh, 5 dr. gentian, and if the breathing is quickened, a drench of sweet spirits of nitre. 2 oz., Camphor; 2 oz., fluid extract of fox glove. 20 minims—in one-half pint of water three times per day, rub the limbs with whiskey—but I shall have to go to the doctor's for all that. Is there nothing I can get handy about the house?"

Wheat is looking well we use Moore's fertilizer and it pays in the wheat, pays in the grass and pays when we turn the rich sod over and put in corn. It is a permanent improver to soil, and I know men who are getting rich and their farms are getting rich by its use, but I don't like Mr. Moore, one bit, I only like his fertilizer.

PATHESS CO., Va.

LADY FARMER.

A Cup of Good Coffee.

A. P. S. in the *Country Gentleman* thus philosophises about coffee. Every housewife would do well to read this and follow the suggestions of Mr. S. * * *

"The peculiar pleasant aroma and taste of coffee does not exist in the green berry any more than wine in the grape, or dextrine in the starch, but is the result of the toasting. The berry has very little mineral matter in it, hence, it consists principally of cellulose, starch and fat, all composed of carbon, hydrogen and oxygen. (I have not forgotten coffeine, which is found in minute quantities, and to which is attributed the stimulating effect.) The toasting breaks up the normal condition, a portion of the combined water (H. O.) is driven off and new organic agents are brought to view, the peculiar, volatile and aromatic oil makes its appearance, and just here comes in the point to secure the future cup of good coffee. Caution must be exercised that too much of the combined water is not driven off, the oil destroyed, and a second generation of organic matter formed, consisting of a bitter principle, caramel (burnt sugar) and charcoal. As this operation is often done by a stupid servant or poor housekeeper, the coffee never reaches a condition to furnish a good drink, no matter how made. The coffee, if not entirely ruined, will have a portion of it beyond redemption, which will injure any that is just right.

Again, there is some coffee that will part with its combined water with a less heat than others, and this must be watched, which is determined by the shade of color developed by the toasting. As the business of toasting is now carried on in the cities extensively by experienced men, with all the appliances for saving the aroma and quick cooling by a current of cold air, forced through it when removed from the fire, and then covered with a thin coating of dextrine or gum, which not only gives it a glassy texture, but protects the oil from evaporation, and is then enclosed in tight sacks, it is better to buy it in this way than to depend upon a careless servant to toast it.

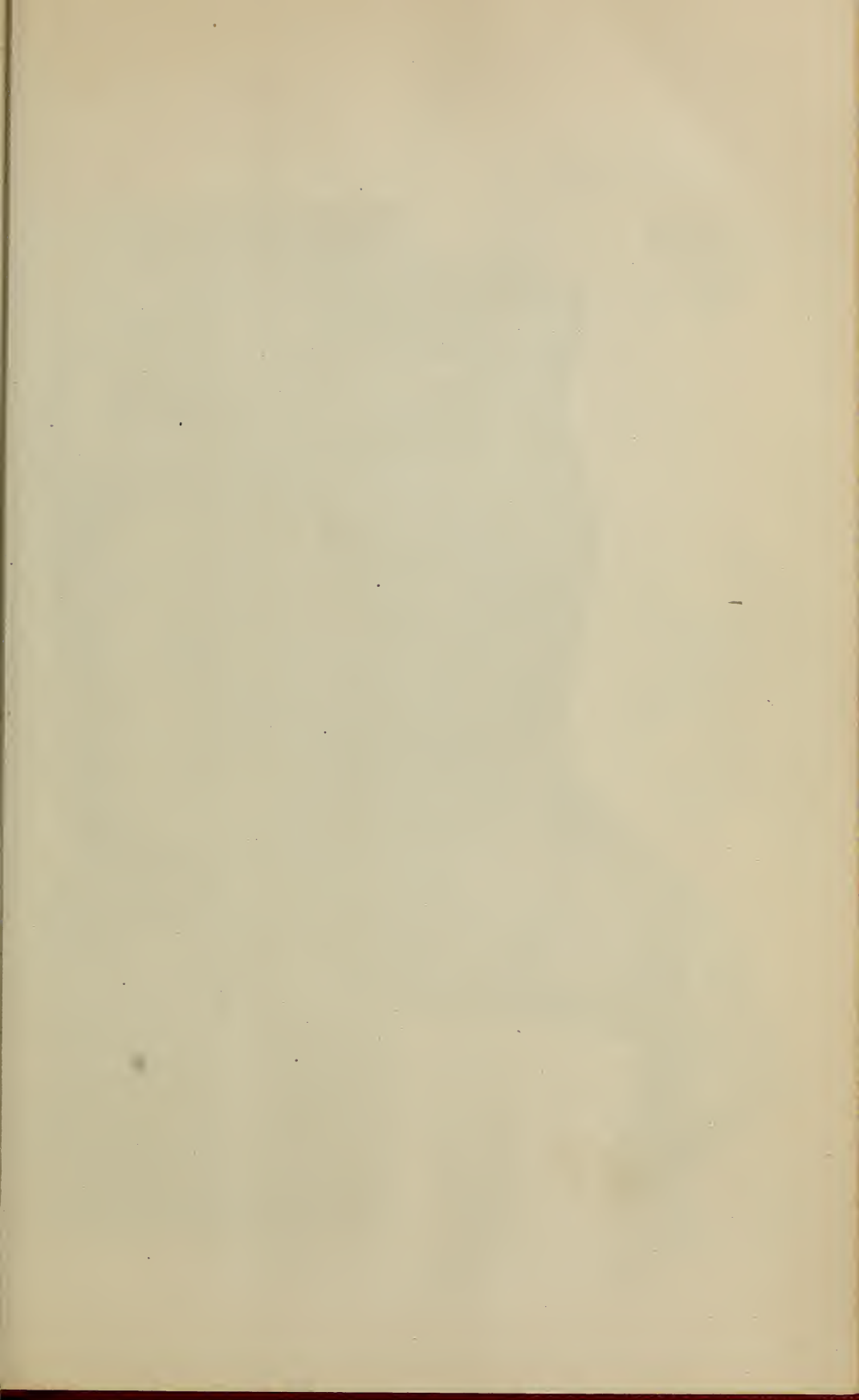
With the coffee in proper trim to start with, I now propose to describe a coffee-pot for making it. It is very simple in its

construction. Any tinner can make them, and being my own invention, I can say that they are not patented, although many say they ought to be. It will be hard to make bad coffee with this; no egg is necessary to clarify, and all the aroma is preserved.

The arrangements consists of two vessels, cylindrical in form, and the size large enough for a small family, the following dimensions will indicate: The outer cylinder, made of ordinary tin, is $3\frac{1}{2}$ inches in diameter and 6 inches deep. like an ordinary tin cup, with a funnel outlet at the bottom about two inches in diameter, covered by fine perforated tin, such as is used for strainers. The inner cylinder is made to fit moderately tight into the first, and with a perforated tin bottom. The entire bottom of this cylinder should be of perforated tin, so that the boiling water will reach the entire surface of the coffee, and the swelling will be uniform.

The coffee is placed in the bottom of the larger cylinder, and the other is then pressed down on it and filled with boiling water which reaches the coffee through the perforated bottom. The swelling of the coffee quickly arrests the rapid passage of the water, and not having room for expansion, forces the water through the pulp of the coffee, which carries with it every particle of soluble matter, aroma, &c., and passes through the lower perforated bottom as clear as amber, yet highly colored with the extracted matter, which drops into the coffee-pot intended for the table. The whole operation takes usually about ten minutes. With good coffee, finely ground, it is simply impossible to have bad coffee. My tinner charges 40 cents for the whole thing but in quantities I presume they could be made for half that. He gives them out on trial and says they never come back. After the first cylinder has passed, a fresh supply water is added to make up the required quantity, but this will pass through nearly colorless and tasteless, and leave the grounds as inert as sand.

A word to those who boil their coffee and clarify with an egg: To secure the full effect of the egg, mix well a small portion of the white with a teacupful of cold water, add to the boiling coffee and stir it quickly; bring to a boil, when the coagulation of the albumen will collect the finest portion of the coffee and render it clear. Muddy coffee is abominable." A. P. S.
Rock Hall, Md.





"Young Wellington" [No. 1564.]